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**Notebook for the XIVth
Maya Hieroglyphic Workshop
at Texas**

by
Linda Schele

March 10-11, 1990

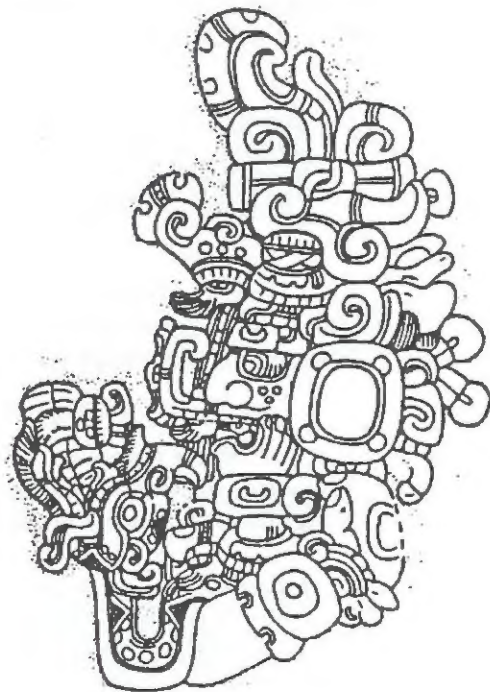


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The 1990 Texas Workshop on Maya Hieroglyphic Writing
is dedicated to
Dr. Nancy P. Troike

For the past thirteen years, Dr. Nancy P. Troike has been the Coordinator of the Maya Meetings at Texas. Under her skillful management, these Meetings have grown from a small Hieroglyphic Workshop into a ten-day affair of international reputation. In no small measure, the success of the Meetings is due to her efforts. Dr. Troike has left the Maya Meetings to return to full-time research. With this dedication, we wish to acknowledge her achievements and express our heartfelt thanks.



Linda Schele
John Murchinson Regents Professor of Art
The University of Texas at Austin

Peter Keeler
Director, The Maya Meetings
at The University of Texas

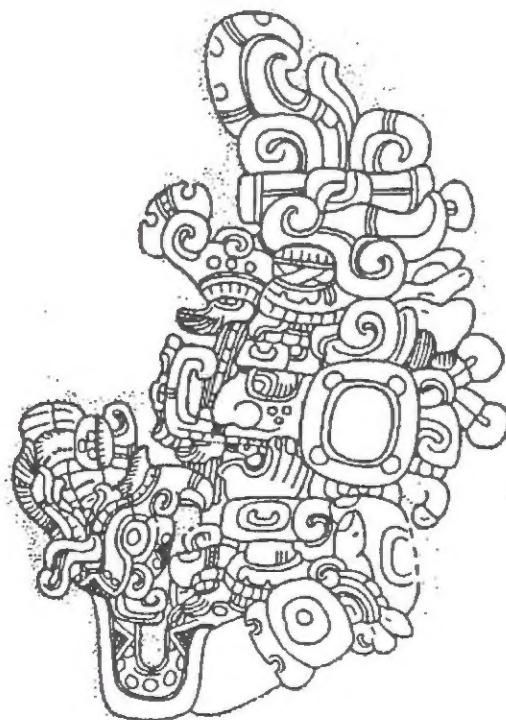


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I wish to thank Robert Sharer and Christopher Jones for securing permission from the University Museum of Archaeology and Anthropology, University of Pennsylvania to reproduce the Tikal drawings in this workbook.

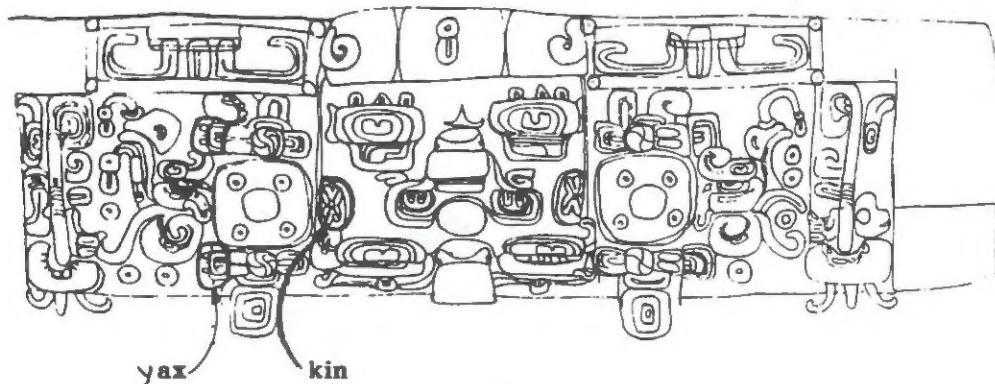
Drawing were reproduced from Christopher Jones and Linton Satterthwaite, *The Monuments and Inscriptions of Tikal: The Carved Monuments. Tikal Report 33, Part A.* The University Musuem, University of Pennslyvania, 1982.



Origins of the Writing System

The Lowland Maya did not invent writing in Mesoamerica; rather, they inherited the idea of writing from an earlier cultural period between 600 B.C. and A.D. 50. The earliest examples of Maya glyphs with known values and from known archaeological contexts in the Maya Lowlands appear at the site of Cerros in Northern Belize at 50 B.C. Two signs, *k'in* "sun" and *yax* "first," occur in iconographic contexts which confirms their readings to be the same as those deciphered in Classic texts. Other undated texts from this Late Preclassic period show consistency in graphic configuration and formatting with later texts, placing the beginnings of the Classic Maya writing system in the period from 200 B.C. to 50 A.D.

The earliest readable text is found on a reused Olmec jade in the collection of Dumbarton Oaks; it can be dated stylistically as approximately contemporary to the Cerros examples. The Dumbarton Oaks jade has no date, but like other texts of its type, it is organized in a left-to-right format in double columns reading top to bottom, and glyph blocks include both main signs and affixes. In his 1966 commentary on this text, Mike Coe noticed that the bird-head and crossed bands signs behind the figure's head also occurs twice in the text at B6, where the crossed bands shape overlays the eye of the bird, and at C2-D2, where the crossed-bands and bird signs occupy different blocks. He proposed that this Crossed-bands/Bird glyph named the personage shown in the scene. We can assume that this person is a ruler because he is seated in the cross-



a. Cerros Structure 5C-2nd east lower mask

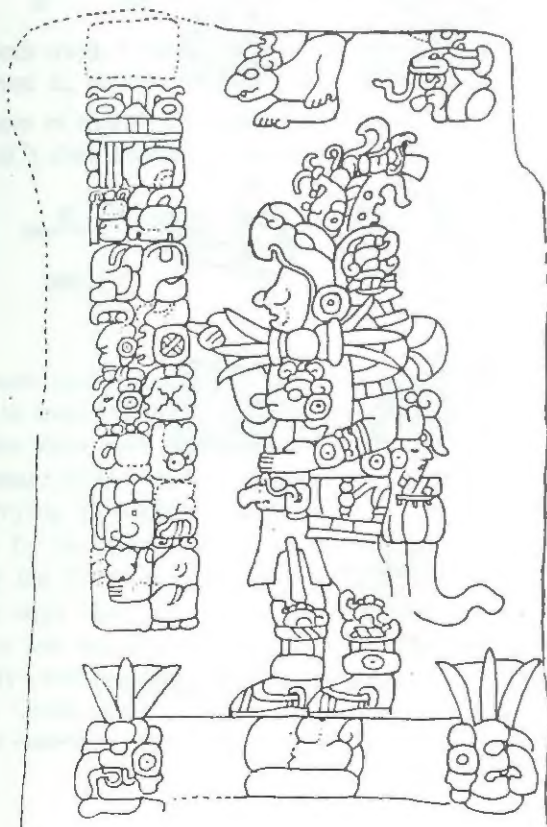


b. Re-used Olmec jade from Dumbarton Oaks Collection

2 Origins of the Writing System

legged position of the elite and wears regalia directly associated with contemporary symbols of supernatural and political power at Cerros and Kaminaljuyu and with royal regalia of the Classic period. Coe also noticed that the glyph at A5 records a lower body seated in cross legged position, but he did not associate this glyph with the seated position of the main figure nor with T700, now known to record the act of accession by showing the lower half of a body assuming the cross-legged seated position. The title into which the ruler is seated is an early version of the T518 title, which records accession for Smoking-Squirrel of Naranjo and Pacal of Palenque. The Dumbarton Oaks jade, therefore, records the earliest example of accession known from the Maya corpus, unfortunately without a date in the text.

Two other texts illustrate other important developments in the earlier stages of the writing system. Ian Graham has provided me with a drawing of a clift carving from San Diego, Guatemala. Like the DO jade the text is written in a double column format, but it includes a date written with a tzolkin (now missing), and Initial Series Introductory Glyph, 18 Yax, the Lord of the Night, and Glyph F. The verb is the T757 auxiliary verb and the T712 blood-letting glyph.



The same verb and unusual calendric format recurs on the Hauberg Stela, a miniature stela of unknown provenience. The date is recorded as ISIG, 12 Xul, G5, unknown, 17C, and 3 Ahau. The verb is T712 blood-letting followed by a very early version of the God C blood sign. The first clause is completed by the name of the pictured ruler. The first clause is followed by a DN of 52 days and the same T518 accession event that appears on the DO jade. Thus the three earliest texts now known record accession events with the T518 title and blood-letting with the T712 glyph, and two of them have dates with the ISIG, tzolkin, and haab in unorthodox orders.

The fact that ISIG glyphs occur without Long Count dates in both examples suggests that the Long Count and the final format used with dates in the Classic period were not in place in the Late Preclassic period. Furthermore, this early format of the ISIG with a CR date, but without a LC notation was used on Tikal Stela 4 a hundred years later, perhaps as a deliberate recall of earlier forms.



Since the Long Count is absent and the date format violates the Classic canon in these early texts, it seems likely that the Long Count was borrowed along with the stela format from Maya speaking groups in the Highlands where the Long Count seems to have a longer history and useage. It should also be noted that the earliest examples of writing in the lowland area have been found in association with the dramatic growth of monumental public works and that the events recorded concern public rites and the legitimization of royal office. It seems that writing became an important social tool for the lowland Maya as they developed highly stratified society and the religious and political foundations for its existence.


Landa's Alphabet

One of the most important sources on the Maya writing system is the information recorded by Diego de Landa in his *Relacion de los Cosas de Yucatan*. In this work he recorded information from a literate informant on the day and month signs and the cycle of the katuns which proved to be the key to reconstructing the Maya calendric and arithmeti-

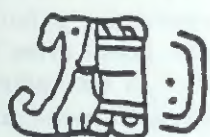
cal systems. Landa also recorded what he thought was an "alphabet," never considering that there might be another kind of writing system than the alphabetic one he knew. The miscommunication between Landa and his baffled informant resulted in a controversy that has raged since the "alphabet" was rediscovered in 1877. Fortunately, Landa described the exact method by which he elicited his "alphabet," and in this description we can identify the misunderstanding that causes the problem. Landa described the elicitation as follows:



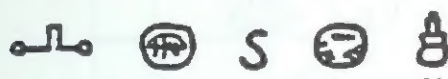
Of their letters I will give here an A, B, C, since their ponderousness does not allow anything more; for they use one character for all the aspirations of their letters and afterwards another for joining the parts together, and thus they go on doing *ad infinitum*, as can be seen in the following example: *Le* means a noose and to hunt with it; in order to write it with their characters, we having made them understand that there are two letters, they wrote it with three, putting as an aspiration of the *l*, the vowel, *e*, which it has before it; and in this way they are not mistaken, even though they should be employed in their skilful device, if they

wish to. For example 
 e l e le

Then they add at the end, the part which is joined. *Ha* means water, and, because the sound of the letter H has a *h*, in front of it, they write it at the beginning with *a* and at the end in this way,


 They also wrote it in parts, but
 a ha

in both ways. I should not place it here nor should I treat it, except to give a full account of the affairs of this people. *Mainbati* means "I do not wish"; they write it in parts in this way:


 ma l n ka ti

Landa told his informant that he wanted to know how to spell the word *le*, carefully explaining to the baffled Maya that the word *le* has two letters. The informant either did not understand Landa or gave up trying to explain that he did not write in letters, for he reproduced in Maya syllabic signs exactly the sounds said to him by Landa, who specifically says that he "made them understand that there are two letters." The letter L is pronounced "ā-lāy" and the letter E is pronounced "ā" in Spanish. Landa told his informant to spell "ā-lāy ā le"

and the informant exactly reproduced these sounds, ignoring or ignorant of the fact that the first three syllables were the sounds of "L-E" in Spanish.


 e l e le
 e - le e le
 l e the word

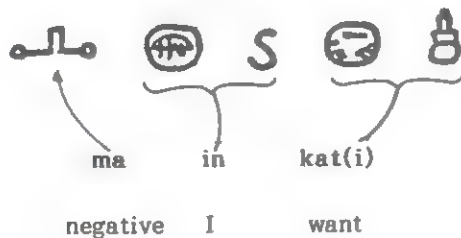
The second example was even more confusing to both men. Landa asked his informant to spell *ha* with two letters, pronounced "ah-chāy" and "ah" in Spanish. The informant wrote the sound of these two letters "ah-chāy ah," this time eliminating the syllabic rendering of the whole word that he had attached to the first example.


 a ha
 a che a
 h a

Landa tried to explain the confusion by describing the signs as coming from the letter H which "has a h, in front of it, they write it at the beginning with a and at the end in this way." However, by comparing the signs under which he wrote "a" to his alphabet, it is clear that they "spell" the sound of the Spanish letter H; they are the syllabic signs *a* and *che*. The third sign is the sound of the letter A; the informer recorded the sounds of the Spanish letters. Landa expected the word *ha*, the alphabetic spelling of which he put under the sound *a*, not having found *ha* in the signs written by the informant.

Both men must have reached a complete state of confusion by this time because Landa apparently asked the informant to write something without any prior instruction as to how to spell it. The words written by the informant made no sense to me until the 1982 Workshop when Kathryn Josserand and

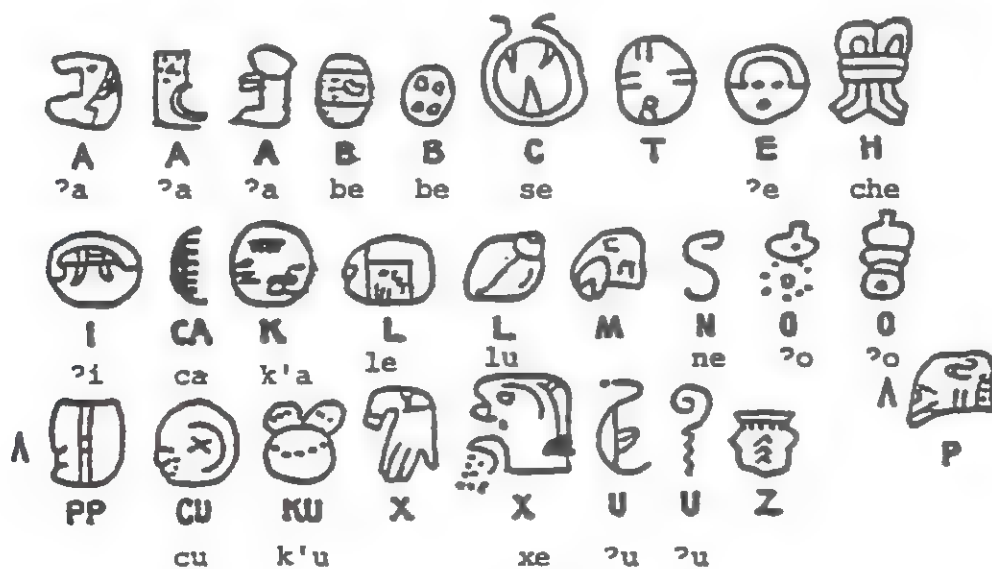
Nicholas Hopkins pointed out to me that the informant wrote in a wonderful expression of his frustration "I don't want to" or in the vernacular "I don't wanna."



These three examples along with the reproduction of the sounds of the Spanish alphabet, not only provides us with a repertoire of known values, but they provide valuable information about the nature of the writing system. In the *ma in kat(i)* example, the informant did not feel constrained to force the boundaries of his syllabic signs to match the morphological boundaries of the words. He wrote the first person pronoun in with two signs. In the "alphabet," he insisted on retaining a series of contrasts between glottalized and non-glottalized consonants--*ka* and *k'a*, *ku* and *k'u*, *p* and *p'*--when these contrasts made no sense to his Spanish inquisitors. These contrasts were apparently basic to the entire writing system and must be respected in decipherment.



We have not yet identified all the allographs for the signs recorded in the "alphabet," perhaps because the informant was hard pressed to fulfill all of Landa's instructions and, therefore, employed rare or unique examples. However, by combining signs from his examples and the "alphabet" with the signs used as phonetic complements in the drawings of the month signs, we can reconstruct a fairly large set of signs with phonetic values given by Landa's informant, values confirmed in the codices and/or monumental texts. Landa's "alphabet" and his record of the day and month signs are the closest thing to a "Rosetta Stone" that Mayanists are likely to find.



5a Syllabary

	b	ch	ch'	h	k	k'
a						
e						
i						
o						
u						

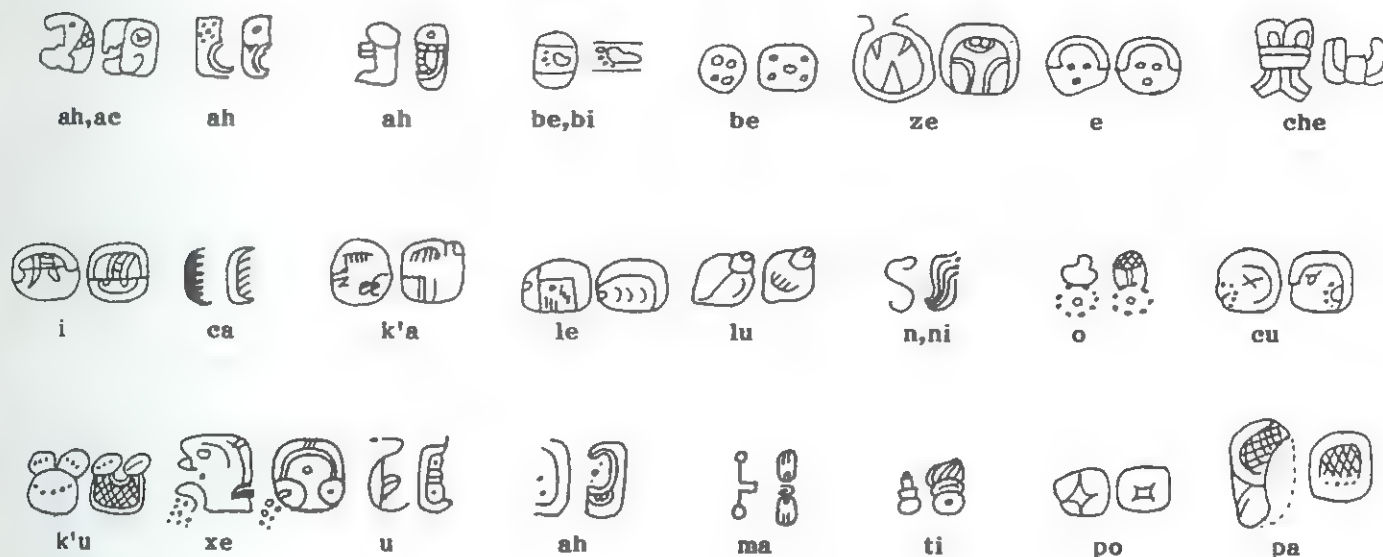
	l	m	n	p	s	t	t'
a							
e							
i							
o							
u							

Syllabary 5b

	tz	tz'	w	x (sh)	y	?
a						
e						
i						
o						
u						

Phonetic values include values from David Stuart's *Ten Phonemes* paper and Appendix B "Interpretation of Maya Hieroglyphs" by John Justeson in *Phoneticism in Mayan Hieroglyphic Writing*.

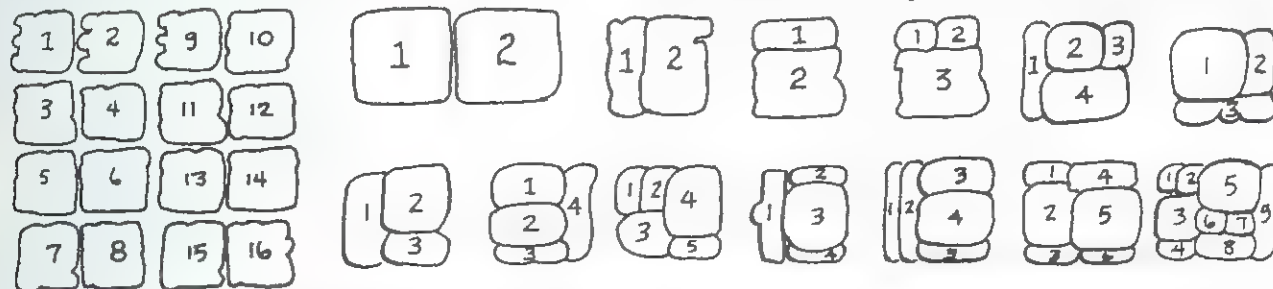
The chart below lists those signs from the Codices and Classic inscriptions that have been identified as allographs of the glyphs in Landa's "alpahabet."



Reading Order

Maya texts are written in a right-angled grid that in general reads left to right and top to bottom in columns of two. Each pair of columns is read its entire length, followed by the next pair of columns, and so on. Exceptions to this general rule of reading order are known, especially in texts on lintels and small portable items, but unusual reading orders are easily detectible by examining the order of numbers in calendric phrases, by looking for known phrases or structures, such as name phrases or titles, or by comparing unusual texts to others of the same kind or at the same site.

text, that is left to right and top to bottom. Single unit glyphs are usually logographs representing whole words. Multiple component glyphs may also represent one word, but one containing affixes or additional grammatical parts. The function of various affixes differ and all are not yet understood, but some represent grammatical parts such as person markers and articles, while others function as derivational or inflectional affixes. Reading order of the affixes is fairly simple; those above or in front of the larger main signs are read first with a left to right preference. Affixes below or behind are read after main signs, again with a left to right preference, although in both situations reading order can be altered by size consideration. If there



The reading order of individual components within any one glyph block (one section of the grid) usually follows the same reading order as the full

are two affixed signs, the one occupying the entire border is read first if it is in front or above the main sign, and last if it is below or behind.

A single glyph block can contain more than one word, but when multiple words are combined, they are usually recognized phrases. Often, word or "expression" boundaries are indicated by some graphic convention, such as depth of carving or regular alignment within a secondary grid.

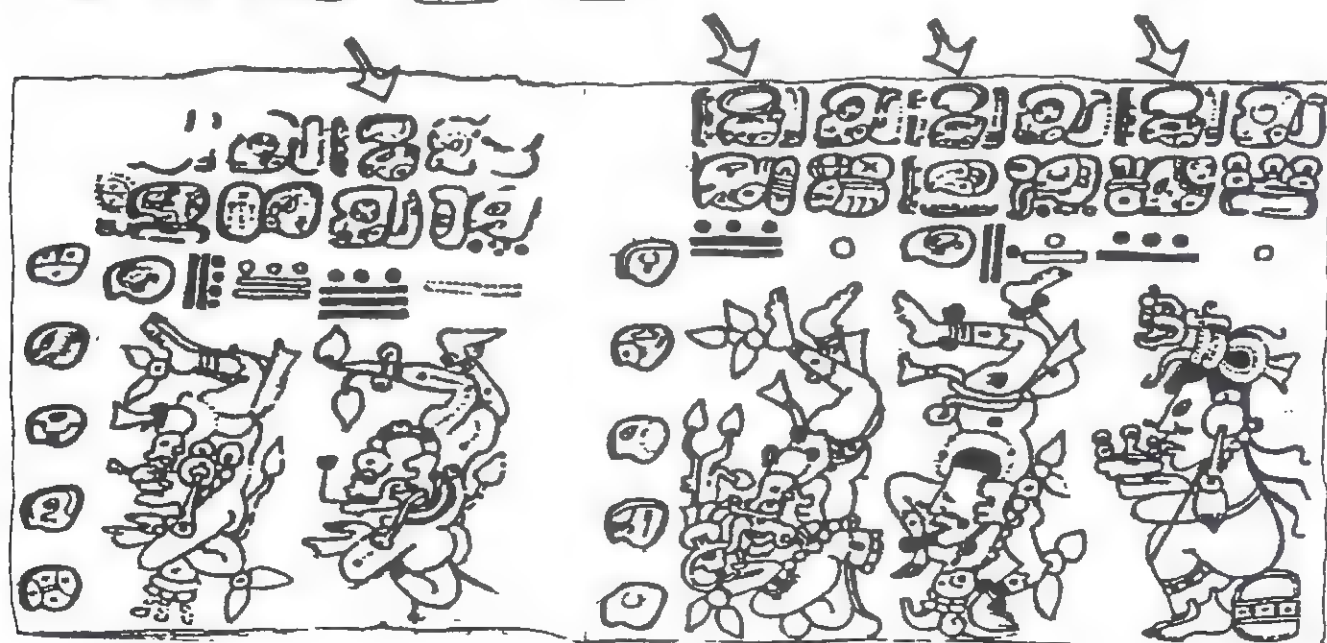
The Maya often used phrases containing more than one word, and they could arrange these phrases in many different ways without altering the reading of the phrase. One of the most frequently used phrases was that of the "tun seating," consisting of a sign for "seating" and one for "tun" (a year of 360 days). In example 1, this phrase is written with each logograph occupying an independent glyph block. In example 2, the logographs are combined into a compound glyph in which both signs appear in one block with the distinct contours of each retained. In a compound glyph, the left sign is often suppressed, or drawn as if it is partially behind the other sign. In example 3, the tun glyph is placed within the "seating" glyph by infixing it, but as with the compound glyph, the contours of both signs are retained. In example 4, the distinct features of both graphemes are placed within a single contour. This merging of two distinct signs into one is known as a conflation.



Any one of these arrangements can occur in any text and more than one can be used in a single text. The choice of arrangement seems to have depended to some degree on the amount of space available to the scribe. In addition, most glyphs can occur in any of these arrangements in either abstract (or geometric) form or in personified form, which in turn can be either anthropomorphic or zoomorphic and in head or full figure form. One of the most difficult tasks of decipherment is to determine those features which differentiate one glyph from another and those features which are merely variation in style or arrangement, but not characteristic of a different sign.

The Event Glyph (The Verb)

The syntax or word order of the Maya hieroglyphic system is best examined in the context of the Dresden Codex in which texts can be shown to be directly related to the scenes which they accompany. In each of the illustration sets, individuals are shown engaged in the same activity. In the first set, four different personages "fall" head down with leaves growing from their limbs. In the second set, three figures sit holding a stick with its base resting on a hand shape in an action long recognized as "fire-drilling." In the third set, the same character (God B) is shown seated within different locales or on different objects.



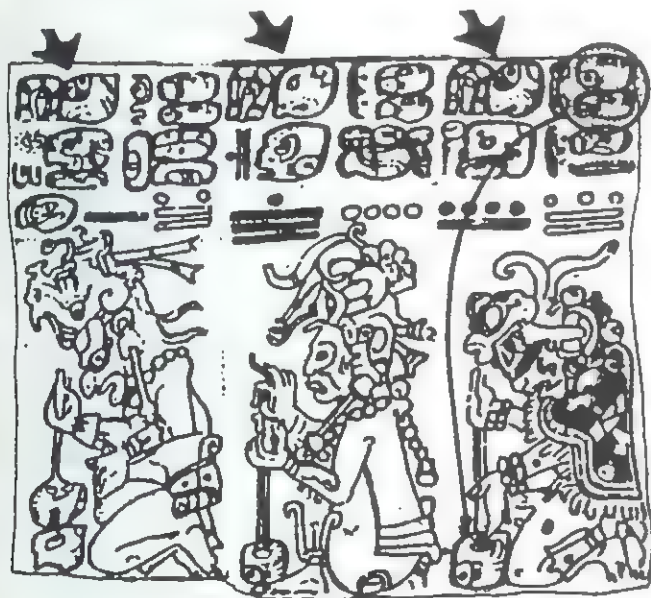
Dresden 15a

Dresden 16a

8 The Event Glyph

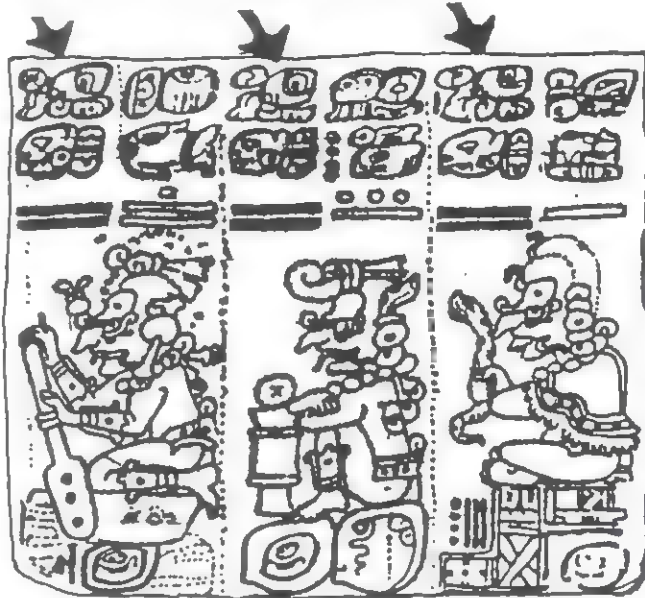
We can begin with the assumption that the four glyphs above each scene refer in some way to the pictures so that if we find patterns of sameness and difference, repeated in a systematic way, the repetitions are connected or determined by some quality of the scene. In the first set of scenes, four personages are different, but their actions are the same; in the texts above each scene, the first two glyphs are the same, and the second pair different. Following the assumption that the texts change according to some quality of the scene, we can begin with the hypothesis that the first two glyphs refer a quality of sameness or to the actions of the figures and the second two to a quality of difference or to the identities or some quality of the individuals.

In the second set of scenes, we find the same relationship between scene and text; the actors are different while the actions are the same. In the accompanying texts the first two glyphs are the same while the second pair are different. However, in this set we can determine that the second glyph is a doubled version of the thing into which the fire-drill is placed. The action must then be recorded by the first glyph.



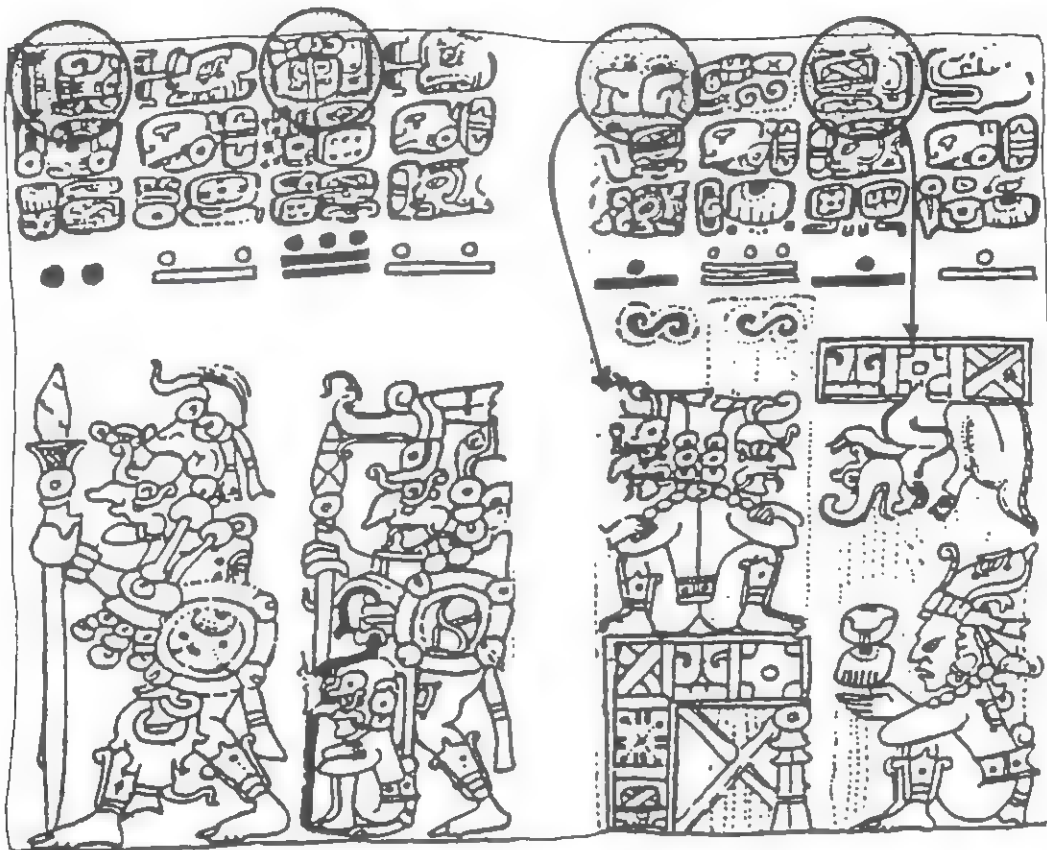
In the third set, the first and third glyphs are the same in each text while the second and fourth are different. However, in this set, we have already determined that the person in all scenes is the same so that we can expect that either the first or third glyph must name the actor. At the same time, since we have already determined that the first two

glyphs of Sets 1 and 2 must refer to the action, we can begin by testing the assumption that the first glyph in the texts of Set 3 also records the action and that the third names the actor.



This structural relationship between the patterns of sameness and difference in the sets of scenes discussed above can be tested throughout the Dresden Codex. Whenever the actions of the pictured figures are shown to be the same, the glyphs in the first positions are the same. Conversely, when different activities are shown in individual scenes, the glyphs in position 1 are different. In other words, the initial glyph(s) that are not calendric or directional co-vary with the activities or states shown; Glyph 1 in the texts shown here and in most hieroglyphic texts record the pictured activity and are, therefore, event glyphs or verbs.

Tatiana Proskouriakoff in her seminal work on the "historical hypothesis" found exactly the same word order in the Classic inscriptions; those glyphs immediately following calendric data or at the beginning of clauses record the state or action. It should be noted here that it is somewhat misleading to assert that all non-calendric and non-directional glyphs in initial position are grammatically verbal, since Maya languages can also use other grammatical constructions in this positions, but with the reservation that glyphs in clause initial position may describe the action or state with different kinds of grammatical constructions, it is possible to say that the Maya hieroglyphic writing is verb



The Subject (Name Glyphs)

initial. Interestingly enough, in spoken Mayan languages, the preferred word order is also verb initial.

The assertion of verb initial word order in the writing system is especially reinforced by a series of scenes from Dresden 66a-67a in which a structural and pictorial relationship can be demonstrated between the initial glyph and the scene. In the four selected scenes God B is shown engaged in different activities and in each case the initial glyph is different. Scene 3 is especially pertinent; the scene shows two God B figures seated on a sky band in a back-to-back position. The first glyph in the text is two torsos seated in a back-to-back position; in other words, the event glyph reproduces pictorially the position in which the actor is shown. In scene four, a peccary hangs from a sky-band, and the first glyph is the "sky" glyph. Again there is a direct pictorial relationship between the action, position, or state shown in the scene and the glyph in initial position.

In 1904, Schellhas demonstrated that certain glyphs always occur when certain gods appear in scenes in the codices. He asserted that these glyphs name the gods and he gave them letter designations, such as God A, B, C, etc., still used as nomenclature today. Zimmermann further refined the designations Schellhas had suggested, splitting several large categories into separate gods with new letter designations. Schellhas had in fact identified the glyphs which named the individual gods, but those names occur in a syntactical structure which begins with verbs. They are not only the names of the gods, but they are also the subject of verbs, and in all cases, these name glyphs follow the event glyph(s). Tatiana Proskouriakoff in her 1960 analysis of the historical contents of the Classic inscriptions found the same word sequence; glyphs naming the protagonist of the monumental text follow those glyphs recording actions or states. Sentence order in the glyphic system is verb-subject.

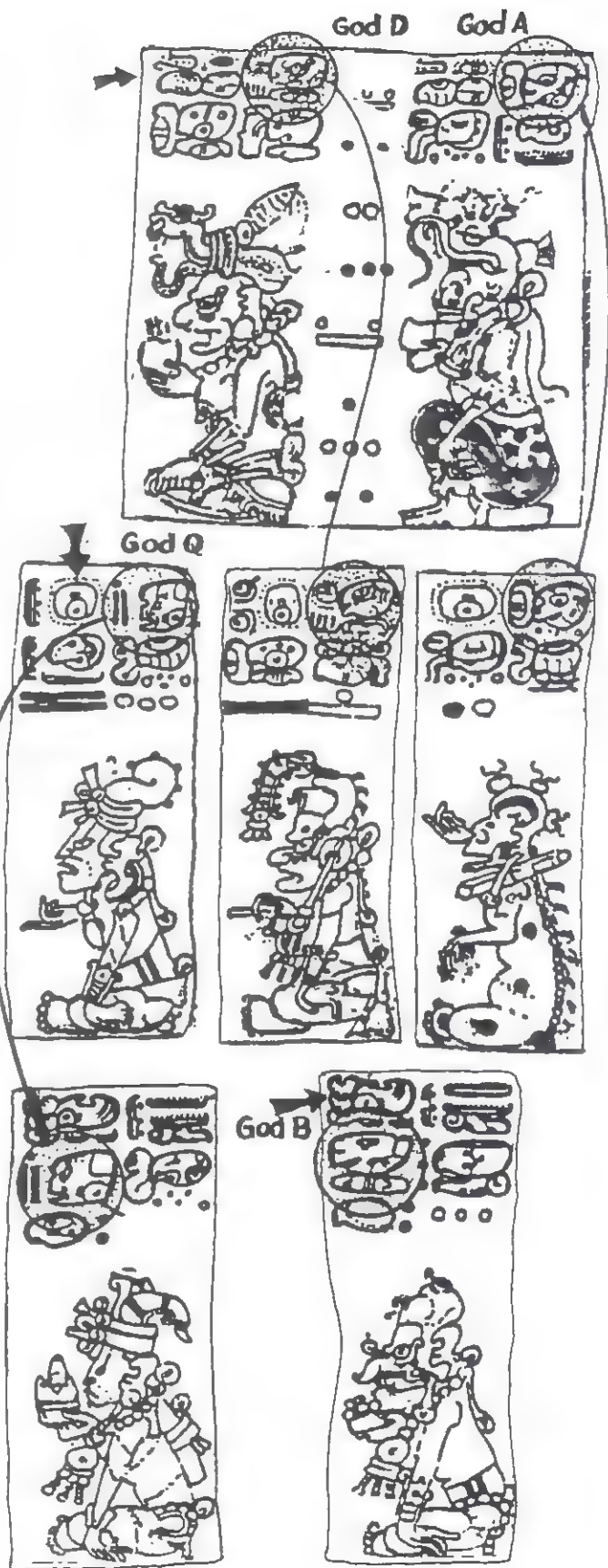
10 Verb-Object-Subject

The verb-subject order can be demonstrated in the following illustrations. In each of the bands, different gods are engaged in a single activity. The event glyphs in each series are the same and marked here with black arrows. The name glyphs of the gods appear in position 2 and are marked with a stippled circle. Schellhas' God D appears in the upper and middle band as shown by the connecting line. Zimmermann's God Q appears in the middle and lower band, again connected by a line. God B, the protagonist of the last scene discussed under the verb section, appears in the second scene of the lower band, and God A, the death god, appears in the upper and middle bands. In the vast majority of occurrences, these same figures appear with the same name glyphs, and when these name glyphs are missing, the same figures are named by attributives (Thompson's "augury" glyphs), identified by Zimmermann as glyphs identifying some quality of each god. Schellhas' name glyphs (and the associated attributives) co-vary with the figures shown in the scenes, while the event glyphs co-vary with the activities shown.

Verb-Object-Subject Constructions

As demonstrated in the previous sections, the preferred word order for the Maya writing system is verb-subject, but the examples so far discussed have utilized intransitive verbs. A number of texts in the codices and Classic inscriptions record transitive actions; in other words, the action involves both an actor and an object acted upon. Although verbs that can be identified grammatically as transitive constructions are rare in the inscriptions, the word order associated with constructions that include a verb, patient (object or person acted upon), and agent (actor) have been identified.

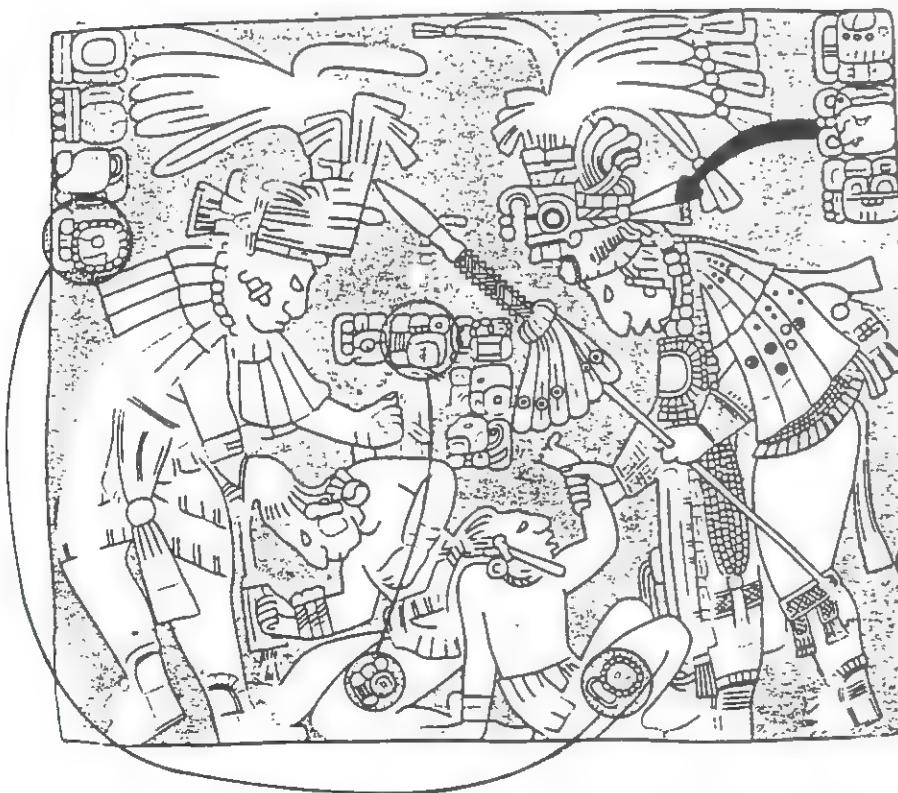
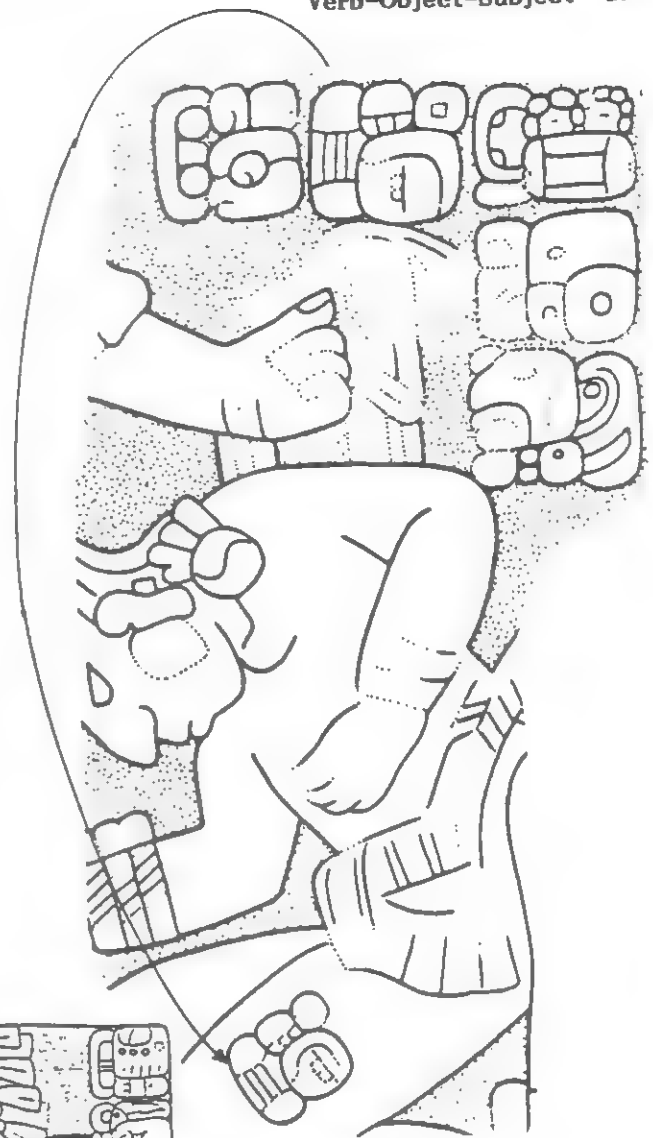
In her 1963 analysis of the inscriptions of Yaxchilan, Proskouriakoff offered an analysis of Lintel 8 with identifications of an event glyph for "capture" and the names of the captive (patient) and the captor (agent). The first two glyphs in the text record the date 7 Imix 14 Zec. The reading of the third glyph is **chucuh** "was captured", and the fourth glyph, a skull surrounded with jewels, not only follows the verb, but it also appears on the thigh of the personage who is clearly being captured. Bird-Jaguar, the figure at the right who grabs Jeweled-Skull's wrist, is named at E1-E3.



Thus, a scene that clearly shows a transitive action, one person capturing another, is accompanied by a text with a verb, a name indisputably associated with the person captured, and a another associated with the person shown dominating the captive. The components of text are action, patient, and agent, and the scene verifies the identification of each component.

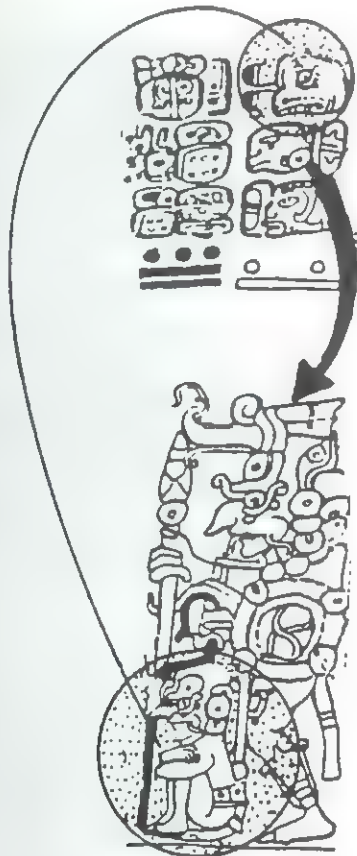
The text adjacent to the second set of figures on Lintel 8 names the components in the same verb-patient-agent order. Again, the standing figure clearly acts upon the kneeling one, who has his name glyph inscribed on his thigh. The text begins with the glyph identified by Proskouriakoff as "captor of" and by Marshall Durbin as a transitive verb for "capture", followed by the glyph on the captive's thigh, and the name of the standing figure. The scene verifies the verb, patient, agent word order.

Three examples from the Dresden Codex follow the same word order. In the first scene, God B is shown holding a rope-like object surrounding God K in a situation clearly identifying God B as the agent and God K as the patient. The text above this

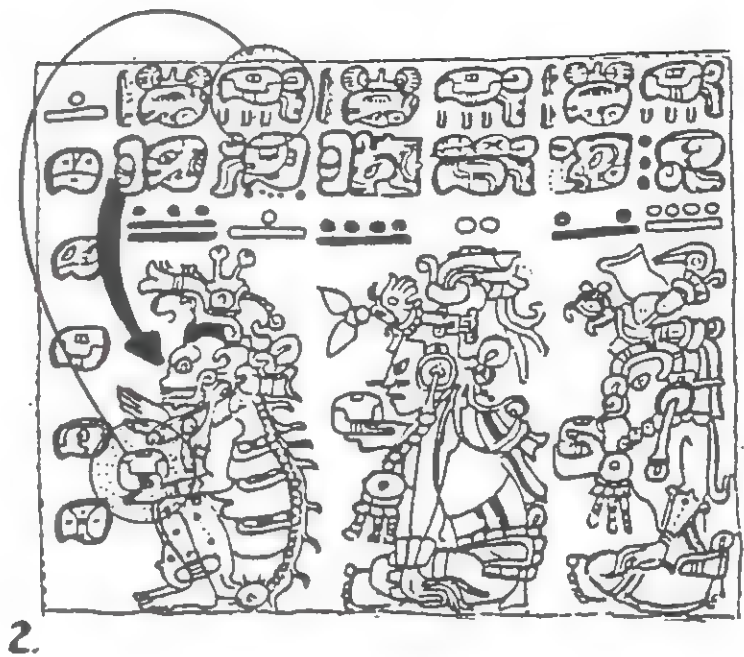


u-verb stem-ø.

he-captured-him



1.

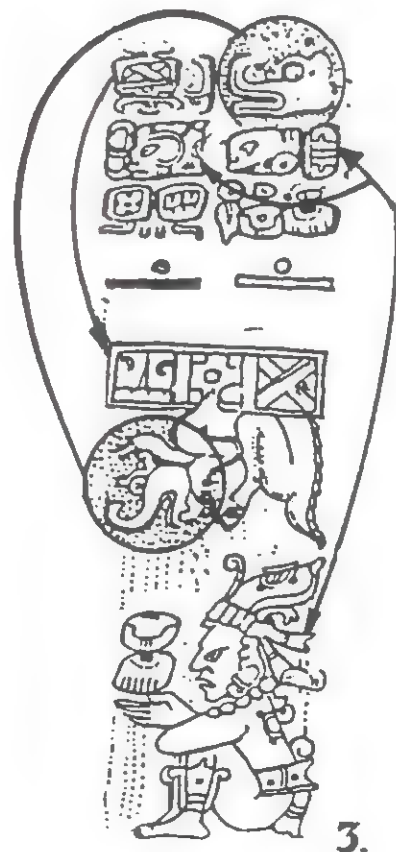


2.

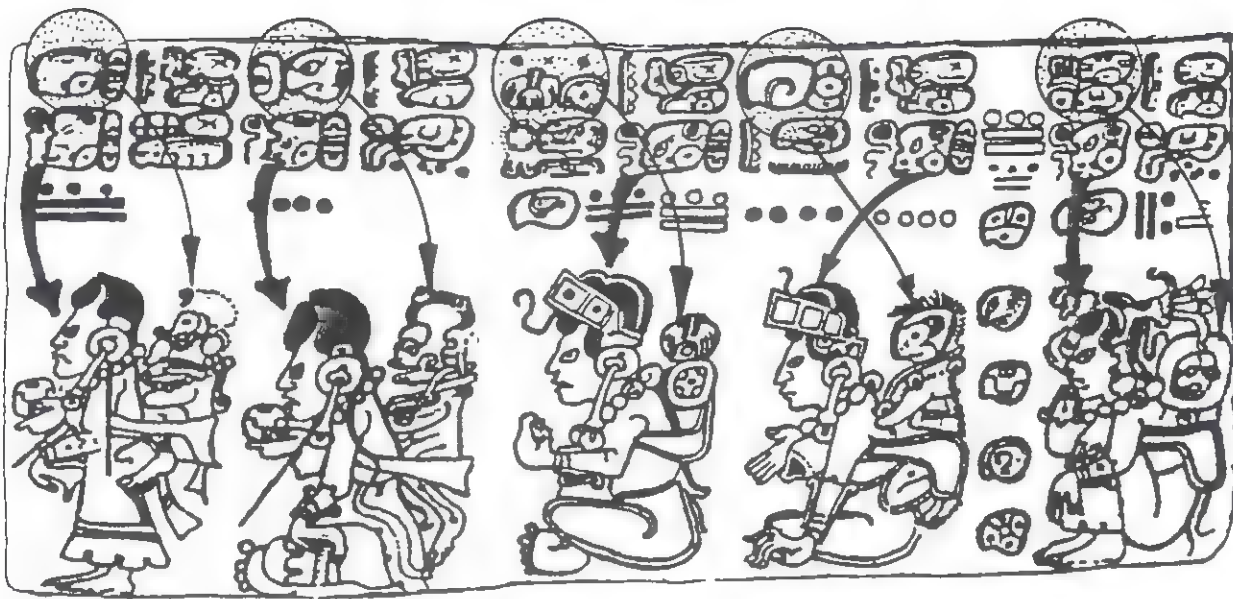
scene includes the verb in position 1, the patient (God K) in position 2, and the agent (God B) in position 3 and 4. In the second example, three gods hold a maize glyph in their hand; the text above each figure records a verb in position 1, the object acted upon--the maize--in position 2, and the actor in position 3.

In the third scene, a square-nosed beastie hangs from a sky-band under which sits the young maize god. The first glyph in the text is the sky glyph in verbalized form; the second is the head of the square-nosed beastie who hangs from the sky. The glyphs in third and fourth position name the maize god, perhaps as an aspect of God B since both name glyphs appear in the text. The first glyphs of this text may be paraphrased "skyed, the Square-nosed Beastie, God E-B" or "God E-B skyed the Square-nosed Beastie." Again, the word order is verb-object-subject.

We have not yet answered all the questions about transitive constructions in the inscriptions; for



3.



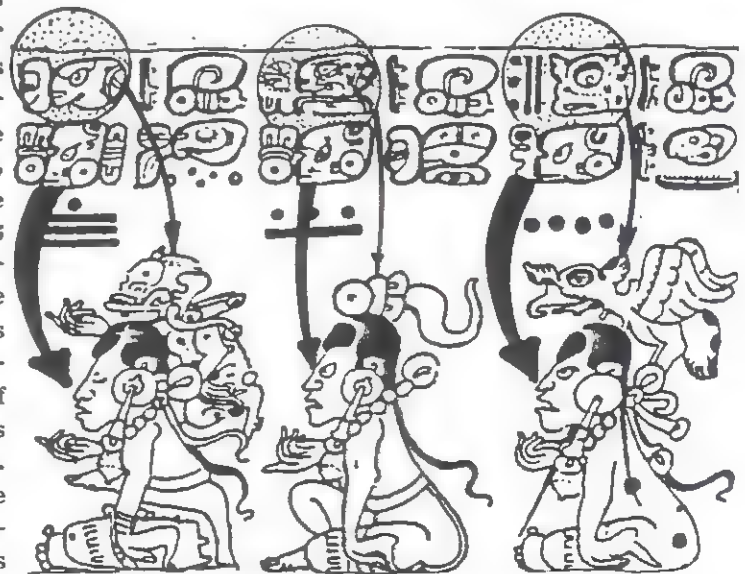
example, there are still debates concerning transitive versus passive constructions. The conclusions about word order in which an agent and patient are clearly present must, therefore, be presented as tentative conclusions, but available evidence clearly points to a verb-object-subject word order. This word order can be used as an analytical tool when identifying the names of actors and patients, and it is a good basis from which to start syntactical analysis of new texts.

Object-Initial Constructions

The favored word order of verb-object-subject is not always used in the codices and inscriptions. For example, in the five scenes below, Goddess I carries a different object or individual on her back. As indicated by the circled glyphs, the names of the carried objects appear in front of the event glyphs, while the name of Goddess I appear behind. The word order seems to be that of object-verb-subject; however, in each text, the sign appearing in Landa's "alphabet" for the letter U is prefixed to the event glyph. In Mayan languages, there are two sets of pronouns: (1) Set A which function as the subjects of transitive verbs and the possessors of nouns, and (2) Set B which function as the objects of transitive verbs and the subjects of intransitives. In Yucatec, *u* is the third person pronoun of the first set; it marks the second glyph in these texts—the event glyph—as a possessed noun. These kinds

of constructions are called statives by linguists. The first three glyphs above Scene 1 would be translated into English as "God B is the burden of Goddess I." The equivalent construction in Yucatec is "God B, her burden, Goddess I" or "**Chac u cuch Ix Chel**" (the stative verb "is" required to make sense of the construction in English is not present in Yucatec).

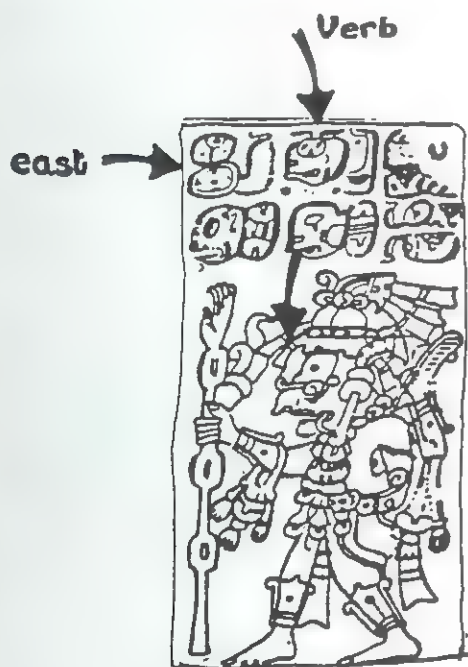
In the second set of examples, the possessed noun in position 2 was read by Knorozov as *mut*, the word for "bird" and "prognostication." As in the scenes above, the antecedent to the possessed noun, or the "prognostication" is recorded in posi-



tion 1 and shown atop the head of the Moon Goddess, who is the antecedent of the possessed pronoun and named in position 3. The three texts read "God A [is] the prognostication of the Moon Goddess," "Itzamna [is] the prognostication of the Moon Goddess," and "Moan [is] the prognostication of the Moon Goddess."

Other Clause Initial Glyphs

In the Classic inscriptions, most texts begin with calendric data in the form of a Calendar Round, a Long Count, or a Distance Number; the remaining part of a complete clause follows the word order established above. In the codices as in the example below, directional glyphs may also precede the verbal glyph.

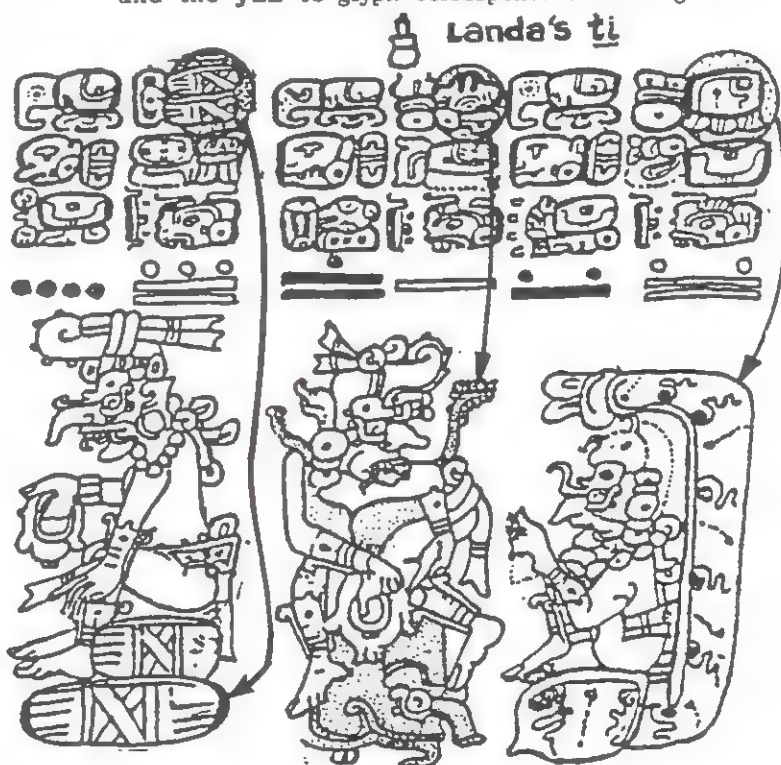


Locative Prepositions

Prepositions used with glyphs of location were first identified by comparing texts in the Dresden Codex to the sign for *ti* in Landa's *ma in kati* example. In the first of the illustrations, God B is shown seated in a series of locations. In frame 1, he sits atop two pillow-like shapes, which are repeated in the text in position 2. In frame 2, he sits within a tree, and Glyph 2 above him records *yax-te*, the Yucatec term for "ceiba tree." In frame 3 he sits

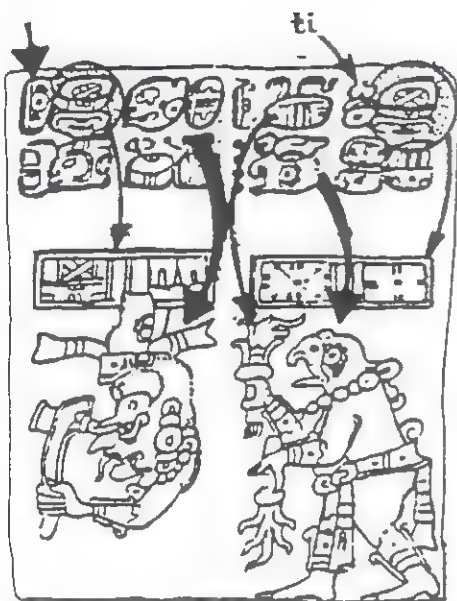
within a curved object marked by *cab* "earth signs, and as in the other examples, the glyph for this location occurs in position 2. In all three texts, the glyph in position 1 is the event glyph, apparently recording that the protagonist "is located" somewhere, and as already demonstrated, the glyph in position 2 names the location. Given this kind of phrase, you could expect both in English and Mayan languages to find a preposition (or "locative") placed between the verb and location, as in "he sits in a tree."

In all three texts, a sign stands between the location verb and the glyph recording the object on which or in which God B is shown, exactly where a preposition is expected. Thompson and many others noted that in frame 2 the glyph between the verb and the *yax-te* glyph corresponds to the sign re-



corded for *ti* in Landa's *ma in kati* example. *Ti* is a general preposition, meaning "in," "on," "from," "to," etc., with wide distribution in the Mayan languages. We can assume that other signs appearing in structurally equivalent positions are also locative prepositions.

For example, the sign prefixing the pillow-like shapes in Frame 1 above also appears prefixed to the "sky" glyph above a picture showing God B



hanging from a sky band. The text above the scene reads "in the sky God B," exactly matching the scene. Next to this scene is another, showing a macaw holding burning torches below a sky band. The text above this scene reads u k'ak' "his fire," ti caan "in the sky," Can-??-Mo' "4-??-Macaw."

The chart below lists those signs which are now known to appear in the codical and inscriptional contexts that identify at least one of their functions as that of a locative preposition. A great number of these signs appear in contexts that confirm their phonetic value as ti or ta.



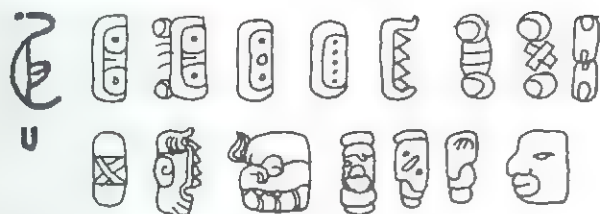
Person Markers or Pronouns

As mentioned previously, Mayan languages have two (more rarely three) sets of pronouns. In English, pronouns are distinguished in use according to whether they are the subjects of verbs, objects of verbs, or possessors of nouns. The pronoun we use as the subject of a sentence remains the same,

regardless of the transitivity or intransitivity of the verb. For example, we say "he slept," "he hit him," and "his dream." In Mayan languages, however, pronouns are used in what linguists call an "ergative" pattern in which the choice of pronouns depends on the transitivity of the verb. One set, usually called Set A or the Ergative Set, is used as the subject of transitive verbs and the possessors of nouns. A second set, Set B or the Absolutive Set, is used as the objects of transitive verbs and the subjects of intransitives. In Yucatec and Cholan languages, thought by most epigraphers and linguists to be the languages of the inscriptions, Set A pronouns occur in front of the verb, while Set B pronouns are attached to the end of verb roots. If English used pronouns in the same patterns as these languages, we would say "sleptim," "he hithim" and "he dream (his dream)."

Landa's "alphabet" again provided the first identification of a glyph corresponding to one of these pronouns. The allograph of Landa's U occurs in the codices prefixed to nouns in exactly the position expected for a possessive pronoun, and the third-person pronoun of Set A in Yucatec is u. Thus, there is a sign which we can say "ought" to be a pronoun because of where it is found, and Landa provides a phonetic value for that sign that is exactly that of the appropriate pronoun in Yucatec, the language of the codices. As with prepositional signs, we can identify a structural position that we know has a possessive pronoun; therefore, any other sign which substitutes for Landa's u in exactly the same position ought to be another pronominal sign, and because of the grammatical structure of Mayan languages, we know that any pronoun that possesses nouns is also one of the set that functions as the subject of transitive verbs.

The list below summarizes those signs which appear in these and similar contexts. Most of them freely substitute for T1, the allograph of Landa's u, so that we assume they all record the third person of Set A, although evidence for their phonetic values is less secure. Since no signs for first and second person pronouns have been identified, even tentatively, we presently assume that Maya texts are recorded in the third person, a pattern to be expected in the inscriptions that are primarily historical narratives.



No pronominal signs of Set B, the subjects of intransitives and objects of transitives, have yet been identified. However, the absence of these signs is expected because the third-person pronoun of this set in all Mayan languages is \emptyset or silence. Since the spoken languages have silence, we would hardly expect to find a third-person Set B pronoun in the writing system.

Tense-Aspect Markers

Lounsbury (personal communication 1978) has suggested to me that some of the signs above may record conflation of an aspect marker with a Set A pronoun. Aspect is another feature of the Maya languages that English speakers have trouble understanding, since we tend to deal with the tense of a verb more than with its aspect. Tense marks a verb according to a distinction of time--in other words, for the past, present, or future. Aspect is a category of inflection indicating an action or state as inceptive, continuing, or terminating, etc. In English, aspect is indicated chiefly by constructions like "to begin doing something," "to remain doing something," "to stop doing something," and by the progressive form, as in "is playing." Maya languages use both tense and aspect, but of the two, aspect is more important and marked by a particle preposed to the Set A pronoun and the verb stem. We have tested several signs for a possible function as "aspect" markers, but to date, we have not any identified sign that has the kind of distribution pattern expected for this function. Lounsbury's suggestion may proven to be correct in future studies, but at present it looks as if the Maya inscriptions are recorded without explicit marking of aspect through the use of preposed signs.

Verb Morphology and Inflection

Since the first version of this section of the workbook was prepared, a great deal of work has been done on the morphology of verbs in the writing

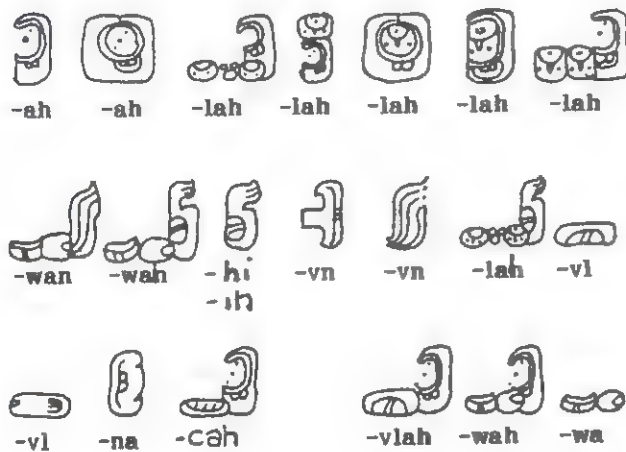
system. My book, *Maya Glyphs: The Verbs*, is an attempt to look at the distribution and forms of glyphs that appear in the structural position of verbs. Barbara MacLeod in her Masters' thesis here at UT has followed my work by associating the patterns of distribution I found with grammatical forms in the Yucatecan and Cholan languages. It is my understanding that Victoria Bricker is doing excellent work associating the verbal morphology of the inscriptions to that of the spoken languages, although I have had no access to her work in progress. I refer any participants who are interested in a more detailed look at the verb morphology of the writing system to these works.

In the study of verb morphology, there are a number of important terms which we non-linguists either do not know or misunderstand. These terms, inflection and derivation, refer to changes that verbs undergo for different kinds of functions. Inflectional changes are those that mark a verb for case, gender, tense-aspect, number, mood, voice, etc., but which do not alter its essential meaning or grammatical function. Examples of inflectional changes in English are "George's," "flips," "played," and the contrast between "ran" and "run." Derivational changes are those that alter the essential meaning or function of the word to something else, such as "unhappy," "informant," "derivative." In the writing system, these inflectional and derivational changes appear to be marked primarily with affixes (smaller subordinate signs) attached to the main signs and by the use of auxiliary verbs (by which I mean verbs that help form the mood, voice, tenses, aspects, etc., of other verbs).

A large number of these types of affixes and some of the verbs which can function as auxiliaries have been identified, usually based on their association with glyphs occurring in the structural position of verbs. Our major problem is that these affixes appear to record phonetic sounds, that is a syllabic form such as -ah , without having fixed semantic value. In other words, T181 and T24 represent the sounds ah and T24 -vl respectively; and as sounds, these syllables may have many different functions in both the spoken languages and the writing system. Therefore, to have identified an affix and to know its sound value does not mean that we have identified any or all of its functions. For example, in prefixed position T181 ah functions as a male article and in postfixed position it seems to have several

verbal functions. T24 -vl functions as a derivational affix for nouns and attributives and as an inflectional ending on verbs.

The chart below lists some of those affixes believed to function as either derivational or inflectional affixes on verbs and the phonetic values most epigraphers believe them to have.



One other major pattern of verbal affixation is to prefix u or an equivalent sign (see the previous section) to the verb, either with or without the suffixed patterns above.

In the last several years, more linguists have become interested in the study of the writing system. They bring to the field expertise about the Maya languages and their structures that are relatively new to the study of the writing system. I anticipate we will see important breakthroughs in this kind of study during the next few years.

One other piece of information is of interest to the linguistic view of the writing system and its verbs. Until 1980, all the linguists to whom I had talked told me that Mayan languages, including Yucatec and Cholan, were ergative and that we ought to look for the kind of pronoun patterns associated with these kinds of languages—that is, one set of signs possessing nouns and prefixed to transitive verbs, and a second suffixed to verbs as the subjects of intransitives and objects of transitives. At the 1980 Palenque Round Tables, Vicky Bricker suggested that we should look for a different pattern based on a new understanding of Yucatecan and Cholan grammar that had been growing among many linguists.

This alternative pattern is called the "split-ergative," because the use of the pronoun sets depends, not only on the transitivity of the verb, but also on its tense-aspect. In this system, Set A pronouns are used as the subjects of both transitive and intransitive verbs when they are in the "incomplete" (imperfective) aspect. The pronouns split into the ergative pattern when the verb is in the "completive" (perfective). If this pattern existed in English, the sentences "he was hitting him" and "he was sleeping" would employ the same preposed pronouns as subjects, but "he hit him" and "he slept" (the completive forms) would be "he hithim" and "slepthim," utilizing the "ergative" pattern in the completive aspect. Bricker's suggestions seem to fit the pattern of pronoun use in the writing system more closely than does an "ergative" pattern. This kind of question will become the focus of linguistically oriented studies in the coming years and provide detailed understanding of the grammar and syntax of the writing system that are not part of the results of earlier kinds of approaches.

The Writing System and How it Works

Most epigraphers have always agreed that the Maya hieroglyphic writing system contains some percentage of pictographic signs, words represented by pictures of objects. A good example of this kind of sign is the use of a jaguar head to represent the word *balam* "jaguar." Since the nineteenth century, however, there has been vigorous and often bitter debate about the presence and number of signs that represent phonetic units without a reference to meaning. To some degree, the debate still rages today, although a growing majority of epigraphers now accept that the writing system is at least partially phonetic. Even among those who accept the principle of phoneticism, there are different "schools," based on the different assumptions about how phoneticism works and what languages can be used to generate readings.

Proskouriakoff and Berlin are among those who have never accepted phoneticism at all. They pioneered an entirely structural approach that requires no assumptions about the nature and language of the writing system. Their approach utilizes comparative analyses of glyphs and phrases within the full corpus of texts and within the context of established knowledge about the Maya calendar and

arithmetic system. The inscriptions are studied with the assumption that the contents are largely historical, and great attention is given to careful study of the relationship of glyphs and phrases to the scenes which accompany them. Readings in the original language of the inscriptions are rarely and with extraordinary caution suggested, and all assignments of meaning are made in the working language of the scholar, not in Maya (except where the field has traditionally used Maya terms as jargon). Information and interpretations yielded by this "historical" approach are widely accepted and have begun to be used by archaeologists in their field work.

Once analysis of the writing system moves beyond the basic structural approach of the "historical" method, agreement between the various groups is reduced. However, since 1973 there has been a growing consensus in the field about how the system works, and a body of widely accepted readings have been generated. Along with many of my colleagues in the United States, I believe the writing system includes different kinds of signs, including a large number that are phonetic in function or in the way they are used. We base our work on the methodology pioneered by Proskouriakoff and Berlin, but we go beyond it to propose "readings" of particular glyphs in the Maya languages. In our studies, we use information from linguistics about the syntax, morphology, and grammar of Mayan languages, and we try to deal with the larger structure of the clause to generate "paraphrased" interpretations, rather than to concentrate on individual glyphs. Our assumption is that the writing system fully realizes spoken languages; it is a fully operant writing system—a point about Maya hieroglyphic writing still debated by "Old World" scholars.

In our work, we accept that the writing system is based on a pictographic script and that this assumption predicts the development of the following kinds of signs:

1. A **pictograph** is the iconic representation of an object. There are a great number of these in the Maya Corpus, including among others representations of animals, various kinds of objects from costume and environment, and supernaturals. Many of the icons may have anthropomorphic and zoomorphic forms. However, there are also many words and concepts that have no pictorial counterparts and cannot be represented clearly as icons; in order to represent these intangible things a different kind of sign must be used.
2. A **rebus** sign is the representation of one word by the use of another that has the same sound. A number of rebus signs have been identified in the writing system; for example, the head of a mythological fish **xoc** is used for the verb "to count," also **xoc**, and a drum **tun** is used in the Long Count for "year," also **tun**. However, rebus signs introduce ambiguity into a writing system because such rebus signs are polyvalent; they have multiple values which are not distinguishable except from the context. Are you to understand "fish" or "count" when you read a **xoc** sign? Another problem with pictographs and rebus signs is that one sign can often have more than one potential reading. For example, there are two words for "shield" **chimal** and **pacal** in the Mayan languages; which word does the pictograph of a shield represent? In a system using rebus and pictographic signs, any one sign may have only one sound, but multiple meanings, or only one meaning, but multiple sound values, or both. In order to reduce this inherent ambiguity, two additional signs are developed.
3. A **semantic determinative** is a sign used to tell the reader to use only one of several potential meanings. For example, suppose we were to use a picture of a "can" to stand as a rebus for the verb "can." Anyone trying to read such a system would know the sound for the sign is "can," but does the sign mean "can (container)" or "can (to be able)." We can distinguish these two meanings by showing a food label on the sign when it is to mean "can (container)," and let the blank can represent "can (to be able)." The food label is a semantic determinative for the "can (container)" sign.
4. A **phonetic complement** is a sign used to indicate one particular pronunciation when the sign has more than one sound value. Suppose we were to use the head of a cat in a pictographic system writing English. Potential readings for the head are "cat," "jaguar," "kitty," "pussy," "kitten," "panther," etc. By attaching a sign to the front of the head recording that the first sound of the word is CA, the reader would know that only the sound "cat" is appropriate to the reading. This is a phonetic complement.

1. A **pictograph** is the iconic representation of an object. There are a great number of these in the Maya Corpus, including among others representations of animals, various kinds of objects from costume and environment, and supernaturals. Many of the icons may have anthropomorphic and zoomorphic forms. However, there are also many words and concepts that have no pictorial counterparts and cannot be represented

When beginning the study of a text and its constituent glyphs, any glyph can function as any one of the following kinds of signs:

1. A **logograph** ("word-graph") is a sign which represents the sound and meaning values of a whole word. This category includes the pictographic sign mentioned above, but a logograph may represent a word without being a picture of it. Non-pictorial examples of logographs include most of the day signs, the T644 "seating" glyph, and portrait heads of supernaturals. Inflectional and derivational affixes may be attached to logographs so that you will see a main sign with appended secondary signs.
2. A **semantic sign** or semantic determinative is a sign which refers only to a particular meaning and not to a phonetic value.
3. A **phonetic sign** represents a sound value alone, usually in the form of a CV syllable, although logographs may be used for their sound values alone when used as rebus signs. It is important to remember that when a sign is used for its phonetic value alone, it does not carry a semantic load.

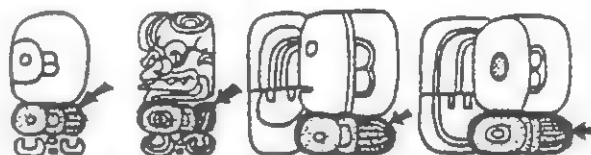
In the Maya writing system, some signs belong exclusively to one of the categories above, but many can be used in any of these three functions. Certain signs, especially affixes, seem to be used exclusively as phonetic syllabary signs. Other signs known to be used as phonetic signs are so far abstracted from their naturalistic models that we can not determine their origins as logographs; some of the signs may well have been intended to be used as phonetic signs at their earliest uses. Other signs function as logographs in one context and phonetic rebus signs in others. It is best, therefore, to resist assuming that a sign has a constant sound or meaning value in all contexts; each case must be tested to determine if the sign is working as a logograph, semantic determinative, or phonetic sign.

The Vultures

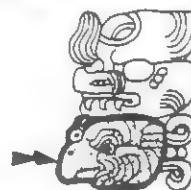
The use of semantic determinatives and phonetic complements in the writing system are most humorously demonstrated in the use of the vulture glyph in the Classic inscriptions. There are many terms for "vulture" in the Mayan languages, including *k'uch*, *ch'om*, *xulem*, *k'utz*, *ta'hol*; since any of these might be a legitimate reading for the "vul-

ture" glyph, the reader cannot know from the glyph alone which is intended.

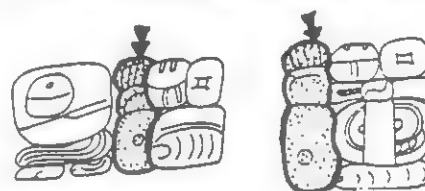
One of the most frequent uses of this vulture sign is as a substitute for the locative *ti* (previously discussed) in the Anterior and Posterior Date Indicators and in the T684 and T644 accession expressions.



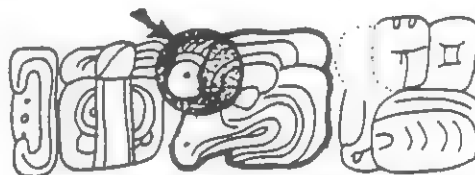
ADI and PDI with the T59 *ti* locative



ADI with the vulture replacing *ti*



T684 and T644 expressions with T59 *ti*

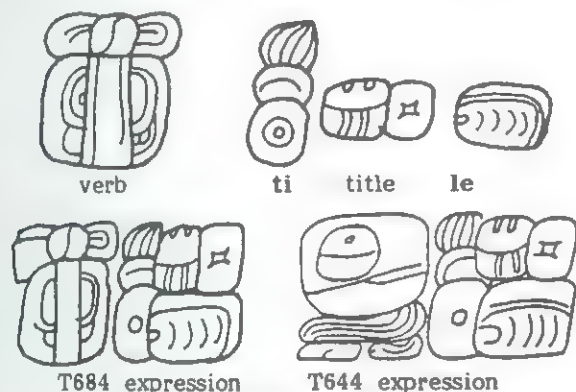


T684 with the vulture replacing *ti*

The use of the vulture head for the *ti* locative is based on the Chol term for the grayheaded vulture *ta'hol*, literally "shit-head" (*ta'* "excrement" and *hol* "head"). The scribes use the *ta'* part of the word to stand for the locative (*ti*, *ta*, or *tä*, depending on the language). In this context, it is important to know that one should not use one of the words listed above and that vulture as a meaning has, in fact, nothing to do with how the sign reads. To insure the correct phonetic value is read, a small *ti* sign is attached to the forehead of the vulture as a **phonetic complement**.

By comparing many T684 and T644 expressions for accession, it can be seen that another "vulture" sign can appear in addition to the *ti* vulture, but

here the reading is very different. In these expressions, a verb, T684 or T644, is followed by a prepositional phrase, consisting of a preposition (usually *ti* or *ta*), a title, and the phonetic glyph *le* (the allograph of Landa's *le* sign).

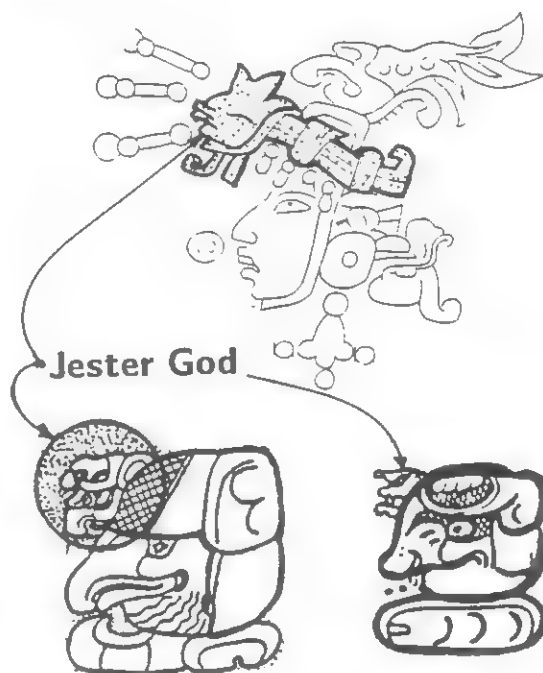


In many of these expressions, the title in the prepositional phrase is T168, read by Lounsbury as *ahpo* or *ahau*, both terms for "lord." However, other titles can appear in this position, including T533 *ahau* as well as the vulture sign. In this context, however, the vulture appears without a *ti* sign attached to its head; rather it wears a headdress scarf with an *ahau* sign attached to the front. This same scarf is used with the T1000e variant of *ahau*, a young male head, normally read as *xib*. Furthermore, the scarf appears to change any sign, including rodent head into versions of *ahau*; it is a semantic determinative obligating a meaning of "lord."



The origin of this scarf as a semantic determinative for *ahau* has been traced to Late Preclassic objects in the Dumbarton Oaks collection and from Structure 5C-2nd at Cerros and Burial 85 at Tikal. All three objects show a lord or a supernatural wearing a headband marked with a tri-pointed shape. On the Dumbarton Oaks jade, this shape appears in a personified form that can be associated

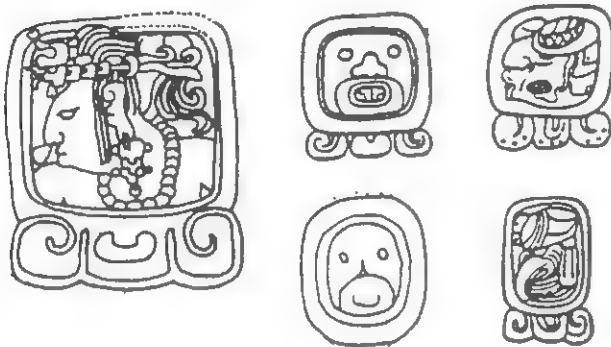
with the Jester God of the Classic period. A number of *ahau* personifications occur with the Jester God replacing T533 *ahau* as the symbol attached to the scarf. Furthermore, on Bonampak Sculptural Panel 1, the act of being "seated on the jaguar throne as lord" is shown as the giving of this Jester God scarf to the incumbent ruler. To wear the scarf is to be the ruler; it is the most ancient Maya crown, and as such, it was used as the semantic determinative for *ahau*.



Variants of the *ahau* glyph can include phonetic complements as well as semantic determinatives. In the contexts of titles and Emblem Glyphs, *ahau* as vulture or human occurs frequently with T130 -*wa* as a final phonetic sign designating the final sound of the glyph. There are also a number of examples in which *ahau* appears with a prefixed *ah* as well as the *wa* suffix, spelling the word in full as well as writing it as a logograph. The following set of examples illustrate the use of phonetic complements in addition to a semantic determinative. A logograph can carry both.



The use of the scarf as a semantic determinative for **ahau** is not confined to the accession expressions, but any of the variants discussed above can appear as **ahau** in any context. A selection of these variations appearing in these different contexts is illustrated below.



ahau as day sign



ahau in anniversary expressions



ahau in "numbered katun" titles



ahau in accession expressions

Phoneticism

The question of the amount and kind of phoneticism in the Maya writing system has been the subject of long and often bitter debate. Dave Kelley's book *Deciphering the Maya Script* and his article on "The History of Decipherment" recount the full history of these debates and the positions of their participants. To me, the question of phoneticism is no longer an issue; new readings have been consistently generated and tested many times and by scholars without vested interest in the questions. And although Thompson never accepted phoneticism, he did believe in existence of rebus signs, a function in which a glyph is used for its phonetic value without reference to meaning.

The fiercest debate has centered on the work of Yuri Knorozov, who proposed a system of phonetic useage in which CVC (consonant-vowel-consonant) words are written with a combination of two CV signs in the form CV-C(V) with the final vowel silent. He also proposed in the principle of synharmony that the second vowel in a CV-C(V) must when possible echo or repeat the first. The reaction of Maya scholars (with the exception of Dave Kelley, Mike Coe, and Floyd Lounsbury) to Knorozov's proposals was negative, partially, I think, because of the times. However, I also think that because Knorozov tried to decipher the entire writing system in one work, he proposed a large number of unsupportable readings; he gave his detractors a lot of ammunition.

In articles critical of phoneticism, it was often pointed out that Knorozov himself proposed readings that violated his principle of synharmony. These anomalous readings included **mut(i)**, **kuch(i)** and **pach(i)**; which according to the "principle of synharmony" ought to be written **mu-t(u)**, **ku-ch(u)**, and **pa-ch(a)**.



mu-t(i)



ku-ch(i)



pa-ch(i)

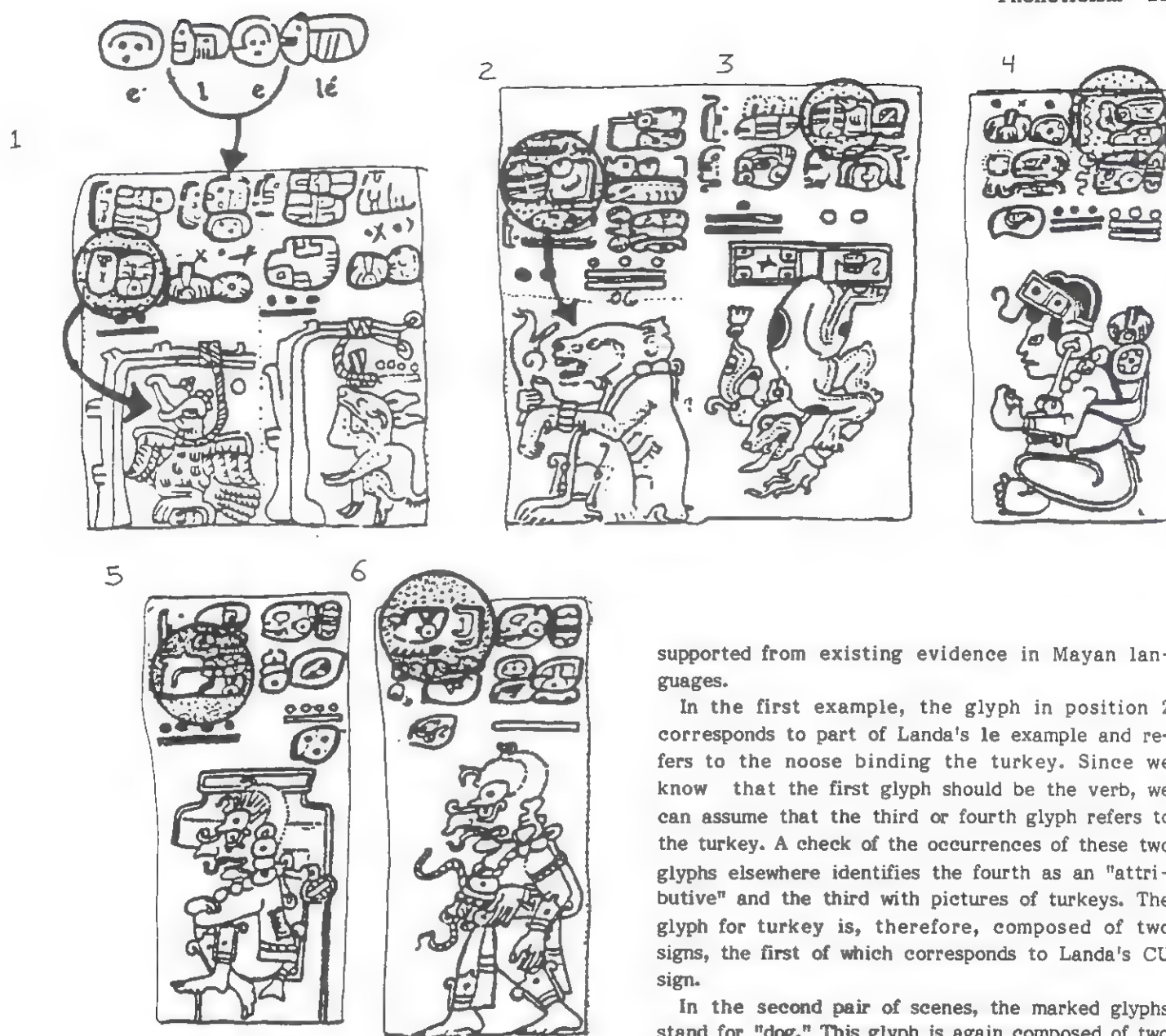
as they occur in the inscriptions

In a previous workshop I explained these exceptions in a discussion of phoneticism, and to my delight, Brian Stross pointed out to me that in some

Mayan languages, the terminal echo vowel rises after an alveolar stop¹, such as the consonants T and CH. In other words, these unusual phonetic combinations match precisely a morphophonetic shift documented in the spoken language and, therefore, predictable in the written language. The exception has become proof of the rule. During the last fifteen years, more epigraphers have taken Knorozov's work seriously and accumulated a growing number of decipherments, demonstrating that, at least in principle, Knorozov was right. In his dissertation, John Justeson, for example, compared the Maya writing to similar writing systems elsewhere in the world and found many of the anomalies that had been used to disprove Knorozov's suppositions are to be expected in this kind of writing. Recently, Steve Houston proposed a **to-k'(a)** reading and his argument seems very good. In general, the "principle of synharmony" has provided a good working start on phonetic decipherment.

In the last several workshops, I have not felt it necessary to present proofs of phoneticism or "synharmony," because abundant evidence of the usefulness of this approach has been published. To me, the existence of phoneticism is no longer a question of debate. However, those of you who are new to the study of glyphs will find the literature overburdened with arguments disproving phoneticism, and it is often difficult to argue with the "experts," especially in a baffling field. The following pages are designed to be read and will not be repeated in the lecture section of the workshop. The particular approach taken to phoneticism results from an interview given in 1980 by Peter Mathews and me to an editor from the LA Times. We were asked the inevitable question about the "Russians and phoneticism." I answered with bombast, and after Peter got my attention, he delivered an elegant argument upon which I cannot improve. I offer that argument here, but in my words, not his. If the argument is unconvincing to you, it is my insufficiency, not his.

¹ An alveolar stop is a consonant sound produced by using the ridge behind and above the front teeth.



The Argument for Phoneticism

Each of the glyphs circled in the illustration above corresponds to the object marked in the scene or to the action shown. In each example, the circled glyph is composed of two or more signs, and one or another of these signs appears in the circled glyph in another of the scenes, but referring to a different object or action. Our problem is to explain why these signs occur in these different glyphs with maximum efficiency and in a way that can be

supported from existing evidence in Mayan languages.

In the first example, the glyph in position 2 corresponds to part of Landa's *le* example and refers to the noose binding the turkey. Since we know that the first glyph should be the verb, we can assume that the third or fourth glyph refers to the turkey. A check of the occurrences of these two glyphs elsewhere identifies the fourth as an "attributive" and the third with pictures of turkeys. The glyph for turkey is, therefore, composed of two signs, the first of which corresponds to Landa's *CU* sign.

In the second pair of scenes, the marked glyphs stand for "dog." This glyph is again composed of two signs. Notice that the first of these signs is the same as the second of the "turkey" signs, and the second sign corresponds to Landa's *LU* glyph.

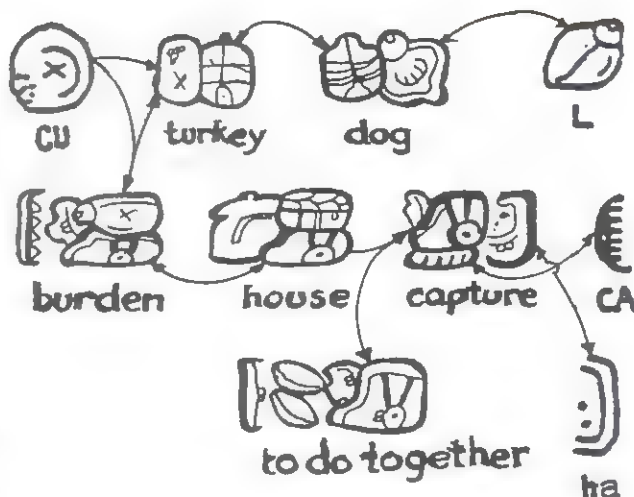
The next example is one of the "burden" scenes previously discussed; we already know then that glyph 1 refers to the object carried, in this case a *yax-kan* glyph, and glyph 3 to the person who carries the burden. Glyph 2 is the possessed noun that ought to read "her burden." It is composed of three signs, including one of the possessive pronouns prefixed to the other two. Of the remaining two, the top one corresponds to the first sign in the glyph for turkey and Landa's *CU*.

7



The fifth example has a glyph in third position that must refer to the house shown in the scene; it is composed of three glyphs, the last of which corresponds to the second half of the glyph for burden. In the adjacent scene, the marked glyph records the event for a picture showing God B with bound arms. "Tied up" or "captured" seem appropriate interpretations. This glyph has three components: #1 is the same as the last signs in the "burden" and "house" glyphs; #2 is the allograph for Landa's CA sign; and #3 is the allograph of the last sign from his HA example, the sign we identified as *a*. In the final scene, the first sign in "capture" (which is the same as the second sign in "burden" and the third in "house") occurs as the second sign in a verb describing the act of sitting across from someone.

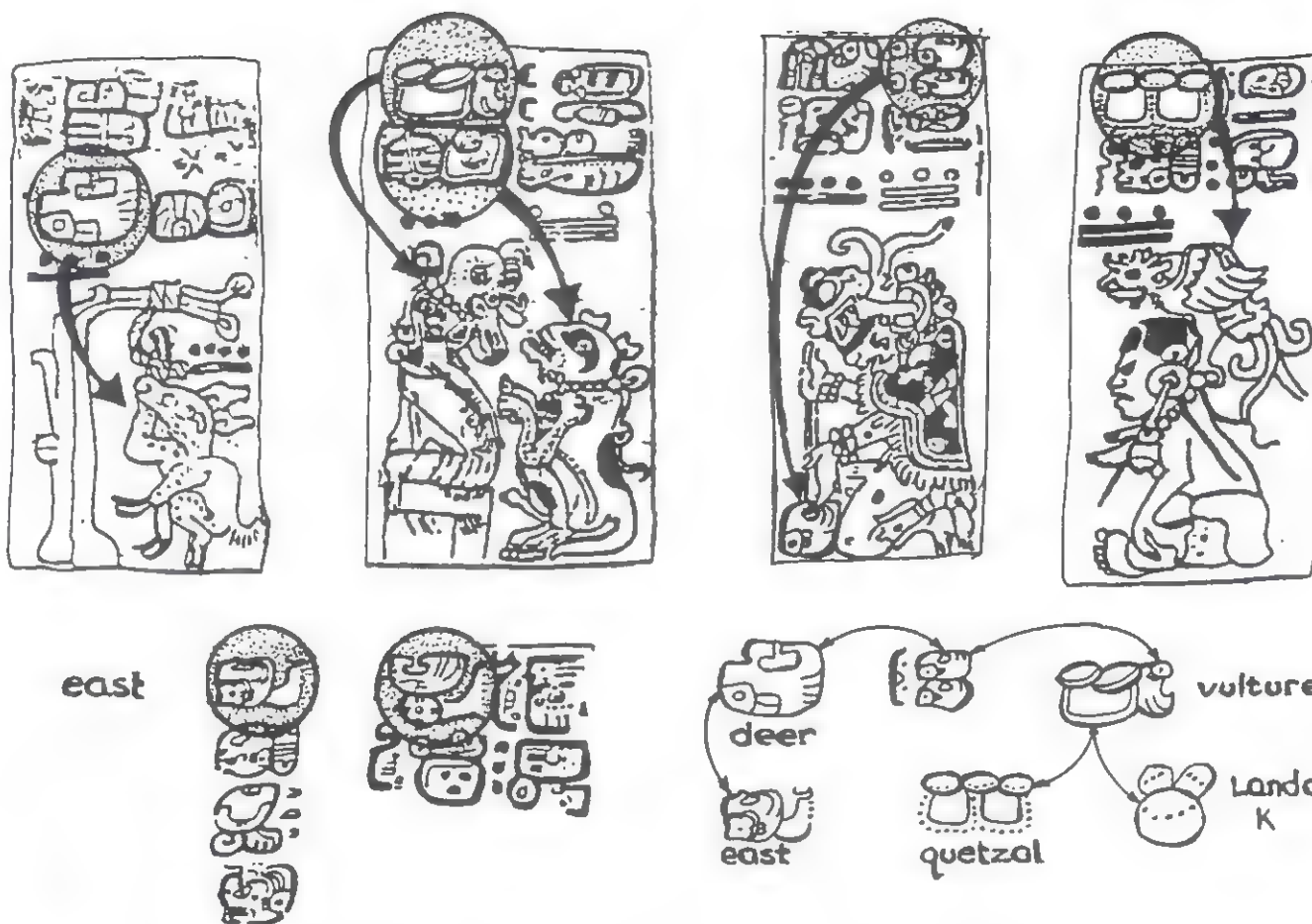
As I discussed in the previous section, any glyph may function as a logograph, semantic determinative, or phonetic sign; each of these possibilities must be tested. If these signs are logographs, then we must find some term for "turkey" that shares its second word with an expression for dog; for example, we must find something like "turkey-dog" as a term for a kind of "dog." But at the same time we must find an expression for "turkey" that shares its first word with an expression for "capture" that shares its second word with an expression for



"house" that has the same first word as an expression for "capture." Furthermore, the second part of the "dog" must explain Landa's LU and the second and third part of "capture," Landa's CA and A signs (see chart 1).

If the sharing of signs by these glyphs are explained semantically, then some common element of meaning must be found in Yucatec that would unite all these terms, and although the signs do not have to share the same sound (as do logographs), their meanings must occur in exactly the relationship I have shown above. Furthermore, the logic used to explain the commonality must exist in Yucatec or some other Mayan language; the logic of European languages may not be used. What seems "natural" and logical to us may not and probably does not exist in the same patterns in Mayan languages.

In testing these patterns as logographs or as semantic determinatives, it quickly becomes evident that the set of terms do not share any common semantic properties in Yucatec that would explain the sharing of graphic components. If, on the other hand, the third approach is taken—that the shared signs represent shared sounds without reference to meaning—then, as shown in Graphs 1 and 2, the shared graphic components are efficiently and economically explained. All of the terms appear in the Motul and Pio Perez dictionaries and are Yucatecan words for the objects and events previously identified from the scenes. *Cutz* is a word for "turkey", and *tzul* is "dog." And notice that the last syllable of "turkey" *cu-tz(u)* corresponds to the first CV component for "dog" *tzul-l(u)* and that the last syllable of "dog" corresponds to Landa's *lu*. The



first CV of "turkey" **cu-tz(u)** is the same as the first CV of "burden" **cu-ch(u)**, while the last syllable of "burden" corresponds to the last CV for "in his house" **tu otoh(u)** and the first CV of "captured" **chu-ca-ah**.

The last reading of the series is perhaps the most elegant and was the result of the work of Floyd Lounsbury. He had recognized the second glyph in the text as **hax bul**, a term for "dice," and the last four glyphs as Itzamna plus an attributive and God E plus an attributive. Seeing that the last CV in the marked glyph corresponds to the **chu** sign from the **euch**, **otoch**, and **chucah** glyphs, he reasoned that there ought to be some verb, ending in **ch** and with an internal vowel of **u** (because of the principle of synharmony) that would make sense in this texts. This time he was lucky, because he found **nuch**, a verb meaning "to work together." Itzamna and God E are "working together" to throw dice for an augury. He also tested the first sign as **nu** and found confirmation in a number of readings in the Dresden and Madrid codices.

A second set of examples further illustrates the pattern of connections explained by phoneticism. The marked set of glyphs in the scene above exhibit the following network of substitutions:

- (1) A glyph for "deer" is the same as the second sign in a glyph for "vulture" and the first sign in a term for "east."
- (2) This same sign when doubled is the second glyph (a possessed noun) in a scene of fire drilling. The verb for "fire-drilling" is the same as **hax** in the **hax-bul** in the **nuch hax-bul** scene above.
- (3) In reduplicated form, the first sign in the "vulture" glyph above stands for a crested bird known to represent a quetzal. It is also the allograph for Landa's **KU** sign.

As in the previous set of examples, an explanation of this set of correspondences based on logographic or semantic readings does not work. However, when evaluated as phonetic signs, the correspondences make sense.

- (1) **Chiih** is a Cholan word for "deer"; the sign ori-

ginated apparently in a Cholan language and was used by Yucatecs as a logograph for deer and as a phonetic *chi* sign. *Ku-ch(i)* is a Yucatec term for "vulture" (the *chi* sign is acceptable in *kuch* because CH is an alveolar stop). *Chi-kin* is the Yucatec term for "east."

- (2) *Hax* is a term for "drilling fire," but it literally means "the action of rolling flattened hands against each other," the action used both in drilling fire with a stick and in casting dice. *Chich* means "the theme of a sermon" or "prognostication." The fire-drilling scene is used as a rebus for the "act of casting a prognostication."
- (3) Reduplicated, the *ku* sign from *ku-ch(i)* reads *ku-k(u)*, the Yucatec word for quetzal. Both uses of the sign are compatible with its appearance as Landa's KU sign.

The Temporal Indicators

Thompson first noticed two glyphs occurring with Distance Numbers and dates in a pattern that marked relative temporal position of two dates. He called these glyphs the Anterior and Posterior Date Indicators. Furthermore, because he argued that one of the constants in these glyphs, the head of a mythical fish called *xoc*, was used as a rebus for the verb "to count," he paraphrased the ADI and PDI as "count forward to and "count back to." Accepting his identification of the "count/*xoc*" rebus as one of the most secure reading in Maya studies, many epigraphers used the paraphrases "count since" and "count until" or "count to and from."

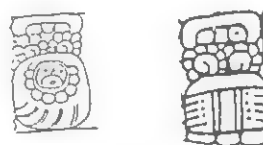
In 1985, David Stuart began to note patterns of substitution that not only produced a different reading of the *xoc* glyph, but also explained the function of the ADI and PDI as a grammatical and literary feature documented in both colonial and modern Maya languages. David noted each of the signs that substitute for the *xoc* sign in the ADI/PDI also occur as the third person pronoun *u* in other contexts, including *xoc* itself and the day sign *muluc*, the other frequently used sign. This inventory of signs includes T1 and its set of substitutions. David speculated correctly that the first sound of the ADI/PDI might be *u* followed by phonetic *ti*, to give the term *ut* or *uti*. Looking for this term and its Yucatec cognate *uchi* in dictionaries and colonial documents proved to be



utix "it had come to pass," "he had died"



iwal ut "and then it came to pass"



utom "it will come to pass"

productive for *ut* means "to happen or to come to pass."

Two years earlier, John Justeson and Will Norman had found another key to the puzzle. The ADI always has T126 suffixed to *ut*, while the PDI has T679 prefixed to *ut*. T126 is also called the Anterior Event Indicator because it occurs as the final suffix on the earlier of two linked verbs. T679 occurs before verbs in the same way when they are the later of two events. Justeson and Norman noted that T679 occurs in exactly the same positions filled by the word *iwal* in the *Acalan Chontal* document. *Iwal* is used both as a progressive to mark that the action is on-going at the time indicated by the narration and as the conjunction "and then." Together with *ut*, the PDI reads *iwal ut* "and then it came to pass."

Kathryn Josserand and Nicholas Hopkins found another of the keys. In modern Chol, there is a special suffix that always occurs in the final suffix position on a verbal stem that marks the action as in the *plus cuam perfective*. This suffix, *ix*, is used with verbs, adverbs, and time periods, to mark that they are completed with the sense of being ended before another action begins. Phonetic evidence supports the reading for T126 as *ix* and also as *ih*.

We do not know yet which value was used in the Classic script, but the function as a pluperfect tense affix is surely correct.

The last segment in the pattern was found simultaneously at the Cleveland State University Symposium on Maya Writing and by Ben Leaf in October of 1988. This glyph was first noted by Berthold Riese at Copan as a sign particularly associated with quarter-katun dates. In 1986, David Stuart suggested to me that the glyph had to represent a future tense of some kind since it always preceded the record of the katun in which a particular event occurred, but at the time of the narration, the event was not yet completed.

The glyph includes one of the many signs for *u*, T44 *to*, and either T502 *ma* or T140 *-vm* to give *u.to:m(a)*. I presented this information to the participants at Cleveland, concluding that we had been able to find no satisfactory reading for the root *tom*. A surprised expression of recognition flashed across Terry Kaufman's face as he recognized the verbal inflection. He explained that *-om* is the future participial in Chol and that the reading is *ut-om*, "it will happen." In a truly extraordinary coincidence, Ben Leaf had come to visit me in Copan the day before I left for the Cleveland Workshop. When he saw an example of the *utom* glyph on a fragment, I gave him the same information I presented in the Workshop. Independently and simultaneously, Ben identified the same glyph as the future inflection of *ut* and left me a note explaining his idea. The reading must be cited to both Terry Kaufman and Ben Leaf. The PDI then reads *iwat ut* "and then it came to pass," while T679 with any other verb reads *iwat* meaning either "and then" or that the action is on-going at the time indicated. The ADI reads *ut-ix* or *ut-ih*, "it had come to pass" and, with a verb the paraphrase, it is best paraphrased with the English auxiliary verb "had" as in "he had been born," "he had acceded." This is the sense of "since" with the action, especially when a Distance Number linked the marked verb with a later event or date. When the PDI is followed by a date, that date is the subject of the verb *ut* giving a paraphrase like "and then 4 Ahau 8 Cumku came to pass." Finally, *utom*, "it will come to pass" is used when a current historical event is linked to a future on, especially the end of katun or baktun.

Known Glyphs and Expressions

I am often asked to estimate how much of the writing system is now deciphered. I must always answer that it depends on what you mean by deciphered. Some glyphs can be translated exactly; we know the original word or its syllabic value. For other glyphs, we have the meaning (for example, we have evidence that a glyph means "to hold or grasp"), but we do not yet know the Maya words. There are other glyphs for which we know the general meaning, but we haven't found the original word; for example, we may know it involves war, marriage, or perhaps that the event always occurs before age 13, but we cannot associate the glyph with a precise action. Of others, we can only recover their syntactical function; for example, we may know a glyph occurs in the position of a verb, but we have no other information. To me the most frustrating state is to have a glyph with known phonetic signs, so that we can pronounce the sign, but we cannot find the word in any of the Mayan languages. If a glyph is unique or occurs in only a few texts, we have little chance of translating it. The following chart illustrates a selection of the most important glyphs for which there are decipherments of one kind or another. I have included some of the major events, titles, and relationship glyphs that are basic to the recovery of historical information. Please remember that these identifications result from the research and insights of many different scholars, and that any list of this kind can only represent what is known to a particular point in time.



Proskouriakoff identified this upended frog as an "initial" event, but most epigraphers now accept it as "birth." Its phonetic value is in dispute, but in the Madrid Codex, this animal and snakes are shown belching up a series of supernaturals. The verb in the associated texts is phonetic *zih*, Yucatec for "birth." The "belching up" and perhaps the upended position of the head seem to refer

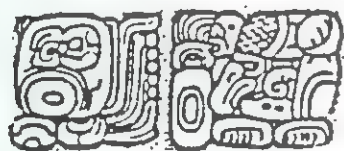
metaphorically to birth. I suspect that the glyph is a logograph for "birth" and was read as the locally appropriate word for "birth."



Floyd Lounsbury recognized this glyph as a substitution for the "birth" glyph above and associated it with a metaphor for "birth" still existing in Chol. It is composed of a pronominal sign, a hand, and "earth," written in either its logographic or phonetic form. In Chol, the expression for birth is *il panamil* "to see the world" or *u kâb panamil* "to touch the earth."



1989: Proskouriakoff identified T684 as "inauguration," an interpretation now widely accepted. Recently, the identification of *ho* and *k'u* complements associated with this glyph confirm its value as *hok'*, a valued first proposed by Wolfgang Cordan in 1963.

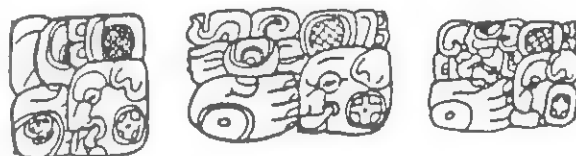


Berlin identified T644 as an "expression" for accession. We have known for some time that it means "to be placed or seated" because of its occurrence with the 20th day of the month. Bill Ringle has presented convincing evidence of its

reading as *chum*, a reading accepted by Mathews because of the occurrence of a *mu* sign as infix. It often occurs with the *-wan* and *-lah* suffixes, known to mark positional verbs.



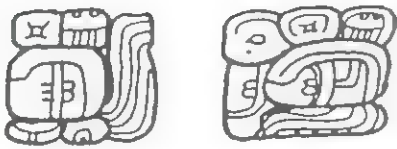
T700 represents the profile view of a lower body in the act of "sitting down." It seems to record the act of "seating oneself," but we do not know if it also reads *chum*. Like T644, it occurs with positional inflection patterns.



The T713/757 expression is composed of the rear view of a hand (*pat* "back" and "to take office"), and the title or office taken in this rite as recorded above the hand. In the first two examples, this title glyph is the knot from the T684 bundle; in the second, it is *zac uinic* "resplendent or pure man"; and in the fourth, it is the Jester God, probably read here as *ahau*. 1989: Barbara MacLeod has recently suggested that all of the objects in the hand are associated with the royal headband. Following Bricker suggestion that T89.T757 reads *tu ba*, the reflexive, she suggests that this accession reads "he crowned himself." I think it is a very good suggestion.



This phrase seems to be an elaborated version of the one above. It occurs with Kan-Xul of Palenque, Shield-Jaguar of Yaxchilan, and Two-Legged-Sky of Quirigua. The sign above the T713 hand is a "mirror," an expression referring to the "taking of office." The second glyph "fish-in-hand" refers to



blood-letting rites that were conducted for accession.

The T518 glyph functions as a verb for accession at Naranjo and Palenque, but it also occurs as a title in name phrases.



T533 *ahau*



T747b *ahau*



T1000e *ahau*



T1030o *ahau*



batab



*batab*¹



*cah*²



T168 *ahpo* or *ahau*



T518

Many of these accession phrases are followed by prepositional phrases that record the office assumed in the recorded event. This prepositional phrase includes one of several locatives, a title, and Landa's *le* sign, which I have proposed records "succession." The title glyph appears to record the office taken and can be combined with any of the accession verbs listed above. These glyphs can also occur as titles in name phrases and "numbered katun" titles, and in anniversary expressions.



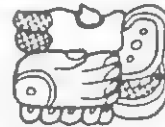
The glyphs at the bottom of the previous column record accession with the T670 hand holding either T533 *ahau* or the forehead mirror of God K. The hand appears to record "grasp" or "hold," and the God K mirror refers to the God K scepter. We now have evidence that this glyph refers to the rite of displaying God K, an act that occurred at accession and other major events. The glyph does not, therefore, refer specifically to accession, but to a rite that could occur on that occasion. 1989: The type of object or scepter held is often specified in the glyph following the T670 hand



took office as *yoc te*
"heir-designation"



yoc te k'in-k'in
"heir-designation"



"deer-hoof" event of children and youths

Anniversary events



was
completed

the first
katun

as *ahau* of
the succession



was
completed

the first
katun

as *batab* of
the succession



expired

the fifth
tun

as *ahau* of
the succession

- 1 This glyph was first identified by David Stuart as a substitution for the *batab* title, but we are not sure how the substitution works.
- 2 David Stuart identified this glyph as a title for secondary lords and territorial governors.

Other titles



ah pitz'

balan-ahau

bacab



numbered hel



k'in-bat



Mah K'ina



"shell-fist" and variants

Building and Monument Dedication

These events are found are many sites in texts recording the dedication of stelae, altars, and buildings.



Events of War and Blood-letting



"fish-in-hand"

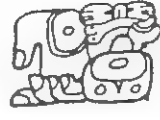


T712 obsidian lancet

blood-letting



blood-letting



"scattering"

David Stuart has found phonetic substitutions for this "scattering" event reading *mal* "to sprinkle liquid." He has also shown a network of interlocking iconography and glyphic contexts that identify this event as one of "scattering blood." It is a blood-letting rite especially associated with the celebration of period-endings, but he has shown from the text on Stela 25 at Dos Pilas that as a consequence of this rite, "the Paddlers were born by the act or the ruler." In other words, the act of blood-letting gives birth to the gods, perhaps by calling them into physical manifestation during the rite. In the Terminal Classic, the "manifesting" is shown in the upper register as dotted scrolls enwrapping small god figures, usually the god shown as paddlers on the bones from Burial 116 at Tikal.



chucah

"to capture"



u chan

"captor of"

Events associated with Venus and war

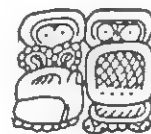


"Star-over Earth" "Star-over-site" "Star-shell"

This set of events has been associated with war, stimulated by certain stations of Venus, especially the first appearance of Evening Star and the point of eastern elongation.

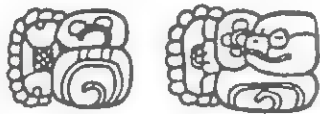


"flint-shield"



to-k'a pacal

Steve Houston has identified the second of the two glyphs above as a phonetic version of the logographic "flint-shield" glyph.



This event is sometimes associated with the "shell-star" events above. This verb occurs in war sequences at Naranjo and Tikal and in the record of heir-designation rites at Palenque. It is associated with the sacrifice of captives and with Venus hierophanies.

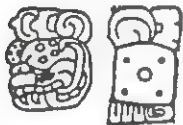


David Stuart has identified these titles as recording the number of captives taken, probably during the lifetime of the person named.

Death and Burial



"wing-shell" death



"Q" death



hil
"ended"



"his death"



cimi "he died"
(1990: N.Grube, W. Nahm)



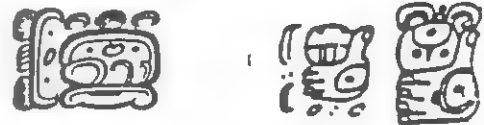
mucah "to bury"

U bah ti way
"He went to sleeping" (death)
(1990: Stuart, Houston, Grube)

Relationship Glyphs



T535 "child of father"



T606 "child of mother" T670 "child of mother"



T712 "child
of parent"

yunene
"child of"

T756 "mother of"

yitan,
"sibling"



yatan "the wife of"

yichan,
"mother's brother"

Gods and Supernaturals



GI

GII

GIII

The Palenque Triad



GI



GII



GIII



GIV



GV



GVI



GVII

Palenque God Series

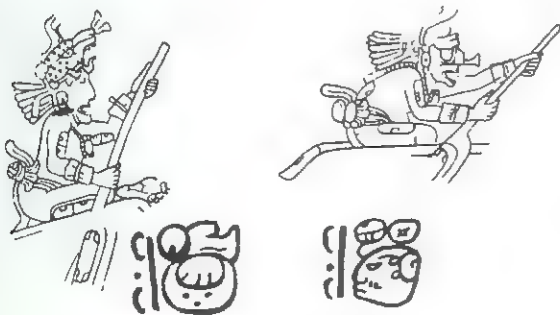
*from David Stuart (1990)



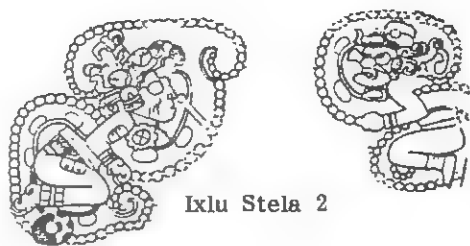
"Sky" god expressions

The Paddlers

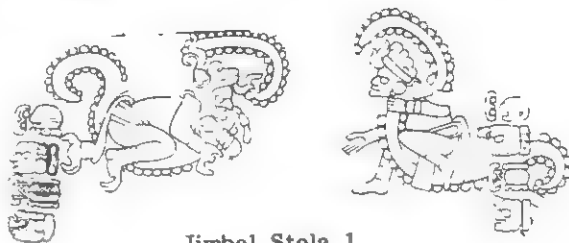
David Stuart first identified the name glyphs of the supernaturals shown as paddlers on the bones from Tikal Burial 116. Iconographically, the Paddlers are distinguished by aged features with one bearing a jaguar ear and headdress, and the other having a stingray spine through the septum on his nose. The same two figures appear in the blood scrolls in the upper register of Ixlu Stela 2 and on Jimbal Stela 1, where the name phrase of each accompanies his portrait. The Jimbal name phrases include a *na ho chaan* (*na* "five sky") glyph and a *na* sign attached to the rear of the glyphic portrait of the jaguar paddler. Using this *na ho chaan* glyph, the occurrence of the *na* sign with the name of the jaguar paddler, and the frequent use of portrait heads as their name glyphs, Stuart was able to identify the use of *ti* as a postfixed attachment to the Stingray paddlers name and to observe the frequent replacement of the portrait heads with *kin* and *akbal* substitutions. The Paddlers have now been identified throughout the corpus as an extraordinarily important religious complex that first appears in Early Classic texts and iconography and persists until the 10th cycle monuments in the Tikal region. In glyphic contexts, they are especially associated with the "scattering" rites of period ending occasions.



Bones from Tikal Burial 116



Ixlu Stela 2



Jimbal Stela 1

Ixlu Altar 1



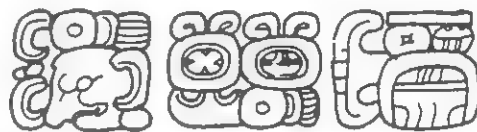
Tikal Stela 31



Copan Stela P



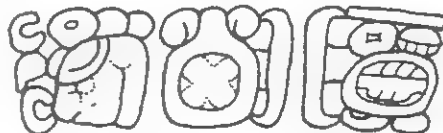
Tonina M110



Tonina M42

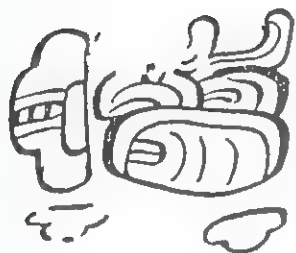
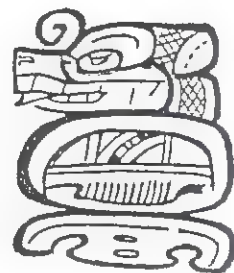
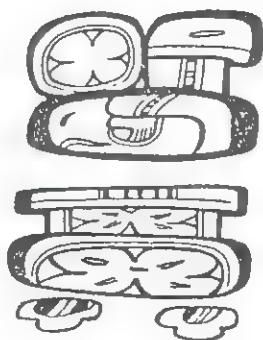


Tonina M139



Copan Stela 6





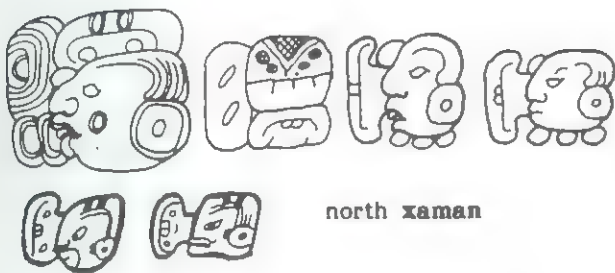
RIO AZUL TOMB
(DRAWING by DAVID STUART)

Other Glyphs

Cardinal Directions



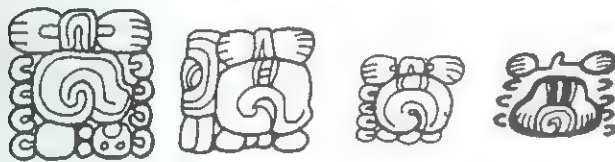
east lakin



north xaman



west chikin



south nohol?

red
chacblue
yaxwhite
zacblack
ekyellow
kan

ah

ah

ah

male article



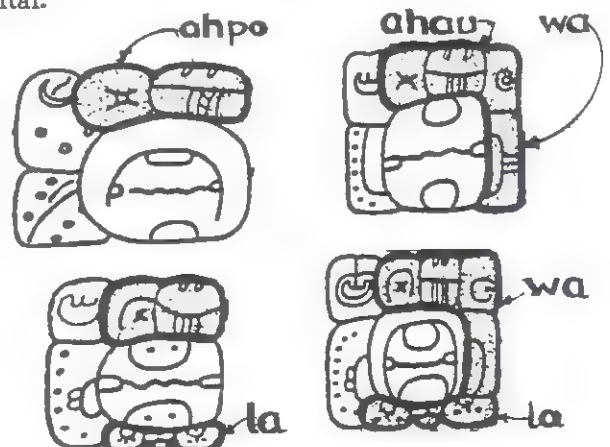
na'

female article

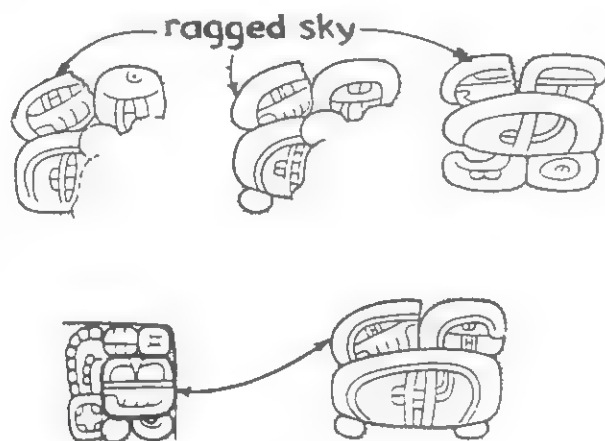
Emblem Glyphs

Heinrich Berlin first noticed that certain glyphs are associated only with particular sites. He could not find evidence that securely proved them to be place names or lineage names, and in order to neutralize any meaning load concerning their function, he called them "Emblem Glyphs." Because no other glyph has the kind of distribution expected of place names and because it is unlikely that the Maya had no names for their cities, Kelley has argued that Emblem Glyphs must be place names. I am not convinced that the problem has been satisfactorily resolved, but the new evidence seems to favor an identification of these glyphs as lineage designations, perhaps used to name the places where a lineage was centered. For instance, the Tikal EG was used at several sites in the Petexbatun; it seems more likely that this proclaims some kind of lineage origin or affiliation for the smaller sites than that the same place name was reused at several different sites.

Recent work on the components of Emblem Glyphs also supports their identification as lineage designations. EGs are composed of two sets of constants and one variable sign that refers to the locale or local lineage. The first set of constants records a title, usually **ahau** in one of three ways. In the most common configuration, T168 **ahau** or **ahpo** is placed above the variable identifying the local place. In the other two forms, the reading of this title is reinforced by the addition of one or two phonetic complements; either T130 **wa** or T130.178 **wal(a)** can be recorded after the main sign. In the first case, the title reads **ahaw-(wa)**, and in the second **ahawal**, a variant of **ahau** glossed in Tzeltal.



Peter Mathews has noticed a very interesting variation in the way this title is recorded on Lintels 35, 36, and 49 at Yaxchilan. The main sign of the Yaxchilan EG is normally a "split-sky" or a jade earflare. In the Early Classic version, the sky sign appears above the largest of the glyphs, in the position normally held by the T168 sign. The sky is ripped in half with the right, inner edge shown as a ragged contour. An *ah* sign, one of two signs in the T168 *ahpo* title, appears to the right of the "ragged-sky" and above the T518 glyph and its *wa* complement. The T518 is then bracketed by *ah* and *wa*, spelling the pronunciation *ahaw*. This EG reads literally "Split-sky Lord."



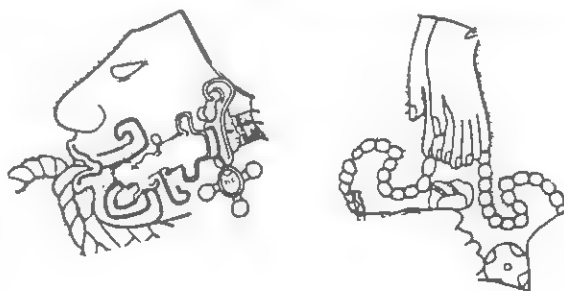
In most Emblem Glyphs, the *ahau* title and the main sign are preceded by another constant, a group of interchangeable glyphs identified by Thompson as "water." The head variant of this group has the affix attached to a head very similar to the glyph designated God C by Schellhas. We are not yet sure that the codex God C and the affix head variant are the same, but the Emblem Glyph character does not appear in the same contexts as the codex glyph. For example, the God C head records the sound *xam* in the codex version of "north" *xaman*, but it never appears in the north glyph in the Classic inscriptions. Furthermore, the head variant always has the dotted affix prefixed to the head, a configuration that distinguishes it from the codex version. The two glyphs should not be merged into a single category and read in the same way.

The Classical sign is composed of a row of dots, rendered as drilled holes or raised circles and surmounted by one of a series of signs, including *yax*,

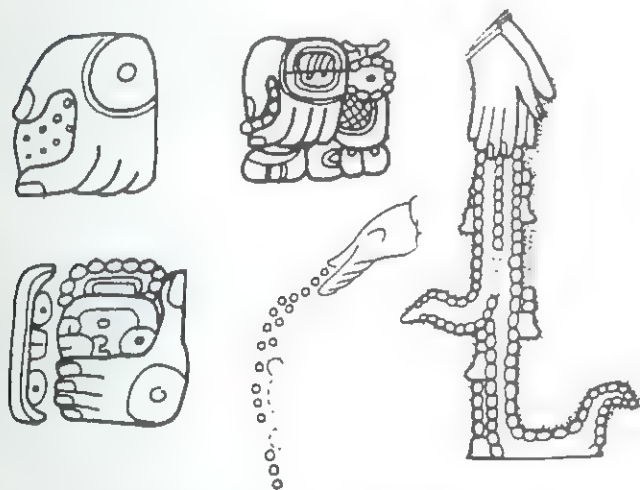
kan, a shell, an earflare, a mirror, inverted *ahau*, etc. In its personified version, this affix is placed in front of or atop the God C head. Thompson based his identification of this complex as water on the association of some of the superfixed items with watery environments (the shell with water) and on the fact that it is often given as a liquid offering. His identification of the set and its environments was brilliant, but he advanced his interpretation before we had learned of the blood-letting complex.



In 1979, I was asked to give a paper on human sacrifice at Dumbarton Oaks, and in assembling my data base, I noticed that the material surrounding the mouth of the woman on Yaxchilan Lintel 24 was surrounded by a scroll with a contour of circles. Since she is undergoing a traumatic tongue mutilation, it seemed to me that the substance smearing her face was logically blood, not face painting or tattooing. I looked for other examples of this dotted scroll and found it particularly associated with captives and in locations where blood is known to have been taken. I proposed that this dotted scroll marked blood flowing from sacrificial wounds.



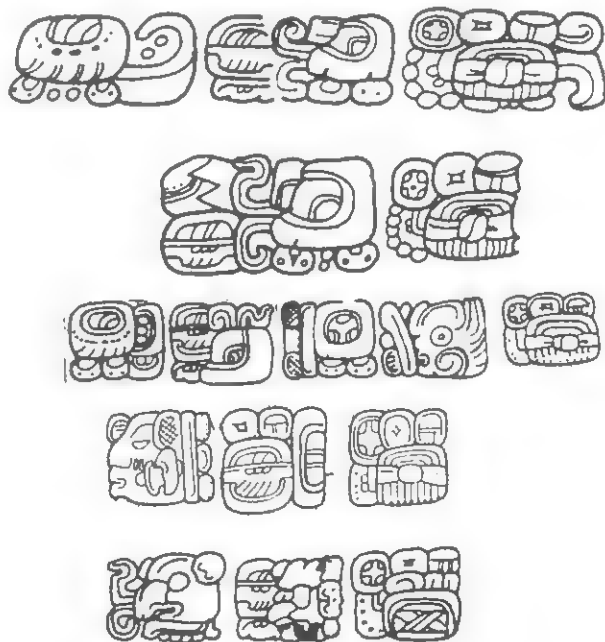
David Stuart accepted my identification, but he was able to extend it far beyond the contexts in which I had found it. He noticed that the material scattered in the period-ending rites at Yaxchilan has the same scroll shape and dotted contour as the mouth marking of the woman, but in addition, it has the same set of symbols infixed or attached to it as does the "water-group." Furthermore, the rulers who scatter are covered with blood-letting iconography, including a personified blood-letter covering the genital area. Most importantly, he found on Seibal Stela 10 a period-ending rite recorded as T41:670, "God C blood-in-hand." The scene shows the ruler holding the Vision Serpent of the blood-letting rites (see Yaxchilan Lintels 13, 14, 15, and 25).



The "water-group" affix is a liquid, but the liquid is blood, not water. The initial sign in the Emblem Glyph records "blood," an identification that reinforces the possibility that EGs designate lineages, rather than or in addition to place names. The T712 expression for "child of" is a verbal expression for "blood-letting," so that we know that the Maya conceived of genealogical descent as a passage or flow of blood between both parents and the child. The use of "blood lord" (possibly read as *k'ik' ahaw* in Yucatec or *ch'ich' ahaw* in Chol) is surely a reference to the descent lines of the rulers. The main sign either names the place where the lineage is centered, or it names the lineage.

We have one good record of descent at Naranjo which suggests that the Emblem Glyphs were inherited through the patrilineal line. Berlin, Marcus, and others have noticed that a woman frequently

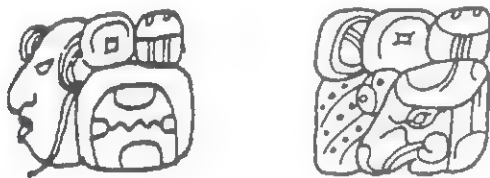
mentioned in Naranjo texts carries the Tikal Emblem Glyph. The parents of this woman are also named in the Naranjo texts, but they are not from Tikal. Steve Houston and David Stuart have identified the name phrase of the father as that of Eccentric-Flint-God K of Dos Pilas, one of the Petexbatun sites with the Tikal EG. The contemporary male ruler of Naranjo, Smoking-Squirrel, acceded to office at age five (Mike Closs has presented convincing evidence that the event I took to be heir-designation is in fact accession). If Smoking-Squirrel (whose parentage is never stated) is the woman's son, a possibility supported by age differences and iconography, then we have a foreign woman as mother of the ruler of Naranjo. The woman carries the Dos Pilas EG of her father, while her son carries the Naranjo EG, presumably inherited from his father, the husband of the Dos Pilas woman.



(1-2) Flint-Sky-God K (Dos Pilas HS); (3) name phrase of father of Lady 6-Sky (Naranjo Stela 24); (4) Lady 6-Sky (Naranjo Stela 24); (5) Smoking-Squirrel of Naranjo.

As in the Early Classic EGs from Yaxchilan discussed above, the "blood" sign is not required in Emblem Glyphs. Rarely, as in the Yaxchilan examples, Emblem Glyphs can appear only with the *ahau* title, and in women's names, the "blood" sign can be replaced by T1000a, the female prefix read as *na*.

At least two sites, Palenque and Yaxchilan have two distinct main signs which can be recorded as a pair. We have no hints as to the source and meaning of the Yaxchilan pair, but at Palenque, one of the Emblem Glyph, the bird, seems to be related to the name of the goddess who is the mother of the gods (the Palenque Triad). This bird emblem seems to be a proclamation of the divine origin of the Palenque lineage or the divine function of the site. In a few other examples, again at Yaxchilan and Palenque, the main sign designating the local site or lineage is replaced by the T747a "vulture" *ahau*. These rare variants seem to be naming the lords who carry them "Lord of Lords."



1989 Revisions to "Known Glyphs"

God C and the phonetic value *k'u*. In the previous section on Emblem Glyphs, I delineated the arguments developed by David Stuart, myself, and other that the material represented by God C and the "water" group affix is "blood," instead of "water" as originally proposed by Thompson in his 1950 *Maya Hieroglyphic Writing: an Introduction* and supported by Robert Rands in his 1955 study *Some Manifestations of Water in Mesoamerican Art*. As the earlier section explained, the later identification of God C as blood began with the association of the beaded scrolls on the cheeks of the Lintel 24 woman as "blood" from her tongue mutilation. See Schele and Miller's *The Blood of Kings* (1986) and David Stuart's "Blood Symbolism in Maya Iconography" in *Maya Iconography* (1988) for detailed discussions of the iconography.

In the last two years, new information has appeared that supports a different reading of God C as *k'u* and *k'ul*. To my knowledge, several people

have found pieces of the puzzle simultaneously and often independently, including David Stuart, John Carlson, and Bill Ringle. The following is my understanding of the evidence as it now exists.

Apparently, Gates was the first researcher to note that God C functions as an honorific title that can refer to any god in the codices. Thompson quotes this observation (1950:80) as references Gates' suggested value of "lord." David Stuart made this same observation again in 1985 when we were working on *Ancient Maya Writing*. Any of the gods in the codices can be pictured with their normal portrait or as God C. The glyph should then refer to some quality that is held in common by "blood" (from the discussion in the previous section) and by gods of various identities.

The previous section on Emblem Glyphs describes the variety of signs and symbols that can occur in the structure category represented by the God C signs. The critical examples within this category are a set of "blood" group prefixes, including ones from Lacanja L1, Copán St. I, and the inscriptions of Chichén Itzá, which have the phonetic complement *lu* attached to them. These examples suggest that the word represented by God C should end with *-ul*.



lu

In 1987, George Stuart ordered a facsimile of the original Landa manuscript from Madrid. John Carlson saw the facsimile when it arrived and at the 1987 workshop he showed me the original drawing of the month Cumku. He pointed out to me that the *k'u* part of Cumku was written with a clearly recognizable God C. This occurrence suggests a value of *k'u* for God C and perhaps *k'ul* for the "blood" group prefix. I understand that David Stuart had made the same observations and arrived at the same conclusion independently.



God
C as

K'u is glossed in the Cordemex as "dios," while *k'ul* is "adoración, reverencia, cosa divina." In Chol (Aulie and Aulie 1978:55) *ch'uljel* is "espíritu" and "el pulso (the pulse)." *Ch'ujuña'in* is "adorar" and *ch'ujul* is "permanente" and "santo." Other derivations are used for god, priest, and the sun. God C would then represent the syllable *k'u* when it functions as a phonetic sign as both *k'u* and *k'ul* when it functions as a logograph. As the latter, it record "god" and "sacred or holy."

In a letter to Ruth Krochock last year, David Stuart summarized his thinking on the part of the God C complex commenting that he and Nikolai Grube had independently come up with the idea that it is used in the Glyph C elbow glyph described below as a designation for the "holy" name of an object.



it's holy name

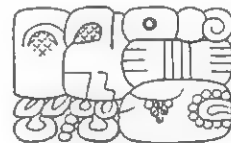
its holy name
the tree-stone

I presented many of these arguments at the 1988 workshop, but I have found several additional contexts which support the reading *k'u* for God C in purely phonetic contexts. The first is found on Stela 24 at Naranjo. In the scene, Lady 6-Sky Ahau, the woman discussed in the section above, stands on the back of a captive named K'inichil Cab. The verb that describes this action includes the T757 auxiliary verb, *ti*, and a verbal noun consisting of *xa*

and God C. The combination should give *xak'* as the action she is doing. *Xak'* is glossed in the Cordemex as "pasar abriendo los pies sobre algo (to pass opening [or placing] the feet over something)." This is an exact description of her position over the back of the captive.

The second set of examples is found at Copán. The first I saw on Altar F' (see *Copán Note 46* for a discussion) in a passage reading *pak'ahix ti tz'ic uy ahk'u* or "he had shaped a clay thing as an offering." *Ahk'u* (*ahq'u* in Wisdom's orthography) is glossed in his slip files as "give, yield, produce, provide, furnish, sacrifice, beat, whip," while *ahk'* is

pak'ahi



ti tz'ic

uy-ak'u



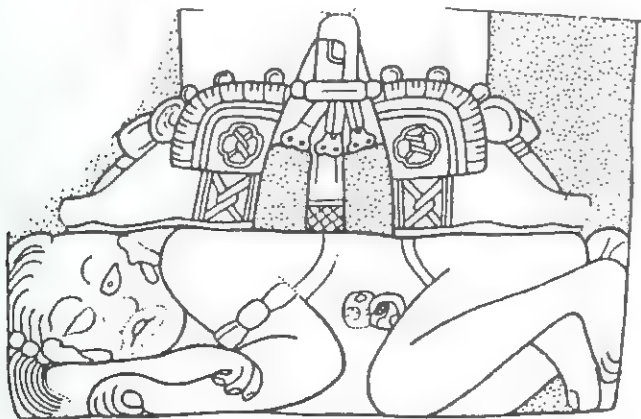
the actor

Chac

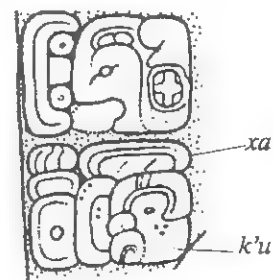


Copán Altar F'

"yield, produce, a giving or offering, ceremonial sacrifice, punishment." Altar F' appears to record the manufacture and probably the deposition of an offering made of clay, perhaps in the dedication ritual for the altar itself, or for Structure 32 where it was found.

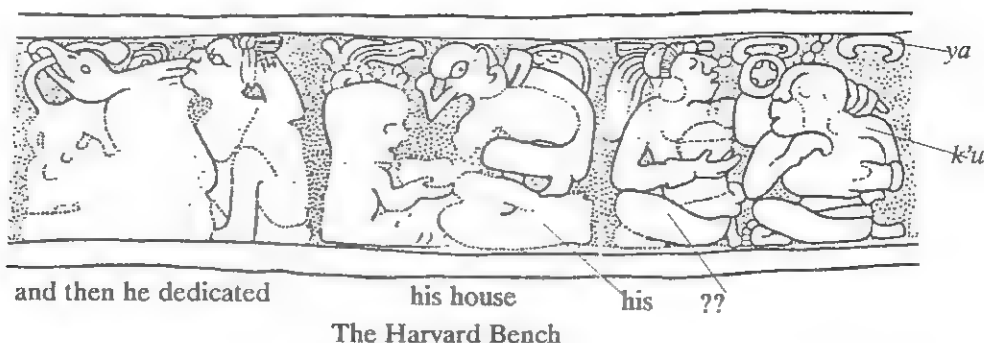


Naranjo Stela 24



xa

k'u



A similar collocation is found on two other objects at Copán. On the Harvard Bench, a glyph reading *ya.k'u* appears in the last clause on the bench. The first clauses record an undeciphered date, a Distance Number which leads to the date 12 Ahau 8 Pax (9.17.10.0.0). The event recorded for this date is a "scattering" by the high king, Yax-Pac. Since the last clause includes no new date, I assume the event was on the same day. The event has *iwaj* in its head variant form and the God N dedication verb. The object dedicated is recorded as *yo:to.ti* "his house," that glyph is in turn followed by *u* (under the feet of the *ti* vulture) and *ya.k'u* "the sacrificial offering of 'Smoke-Shell,' who was dead by that time. The clause records the building dedicated as an offering to the dead predecessor of the present king. Unfortunately, we don't know if it refers to the house in which the bench was found or to some unnamed building in the acropolis.

The second occurrence of this same glyph occurs



u tz'ic-ba *y-ak'u ??* Yax-Pac

Bench from 9N-82

on the bench from Structure 9N-82 in the Sepulturas Group. This opens with the dedication of the house by the head of the Sepulturas lineage and then specifies the rite he performed. The last phrase records the dedication activity of the high king Yax-Pac. The verb *u tz'icba* (the same as on Altar F^o) is followed by *yak'u* and Yax-Pac's name. *Y-ak'u* as "his ceremonial sacrifice or offering" seems particularly appropriate to the context.

For me these two contexts confirm the value of God C and the "blood" group as logographic designations of "divinity" and "holy" or "sacred" and of God C as phonetic *k'u*. The liquid spill in the scattering ritual at Yaxchilan is then "holiness" or "holy liquid." I believe that the iconography associated with this material still supports its identification as "blood," but clearly other substances, such as jade, maize, rubber, copal, and other offerings can also be included in the category. In the blood and water streams of Teotihuacan iconography exactly this array of things are shown in the streams. The presence of *yax*, *chac*, *k'an*, shells, bones, jade beads and earflares, obsidian, and mirrors in the Maya "blood" streams may describe the category in much the same way.

The Dedication Events

The latest category of events to be deciphered are a set of verbs and nouns particularly associated with rituals of dedication, the proper names of particular objects, and the generic categories of objects. These glyphs are particularly important to the inscriptions of Copán and their decipherment was pioneered by David Stuart during the last three years of work on the Copán corpus.

The T79 Verb

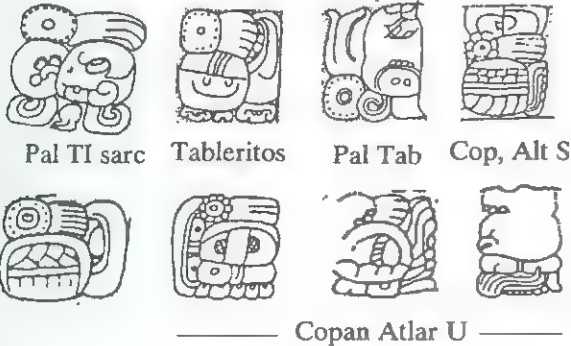
This verb appears in several different forms with a variety of spellings and inflectional endings.



Examples from Palenque

No satisfactory phonetic value has been proposed for it, but Floyd Lounsbury was the first person to pay attention to it. He first associated it with anniversary dates on the Tableritos at Palenque. For

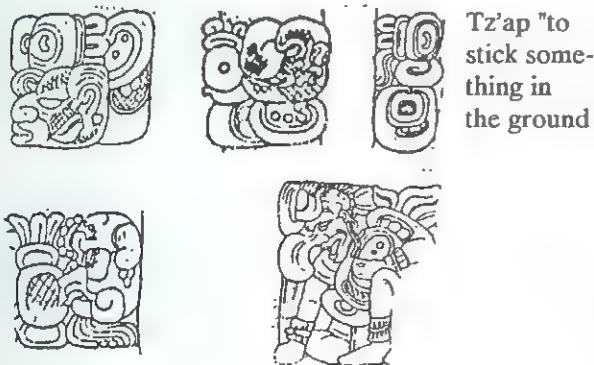
a long time, I was misled by this association, thinking that the verb pointed toward anniversary date. However, now it is clear that the action refers to some dedication or action of placement and that such rituals were often timed by anniversary celebrations.



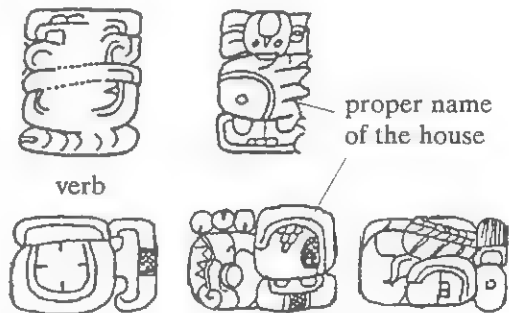
At least one form resembles the "house" glyph, but this form is used to record the dedications of altars and stelae as well as houses. This association leads me to suspect that the house glyph, especially the variant that appears to be the thatched roof, is simply phonetic *to* or *ta*, rather than *otot*.



This dedication verb consists of the tail and rattles of a rattlesnake prefixed to a smoke or fire sign. Sometimes a *chi* hand appears in the sign. The rattlesnake sign begs to be read as *tz'ab*, but I have found no satisfactory reading that fits this contexts or the "quincunx" death glyph, which is its other major context. Barbara MacLeod has suggested this verbs means "to kindle fire with maguey (*ki* in Yucatec)." This is a possibility since the burning of offerings in dedication rituals has been confirmed archaeologically.



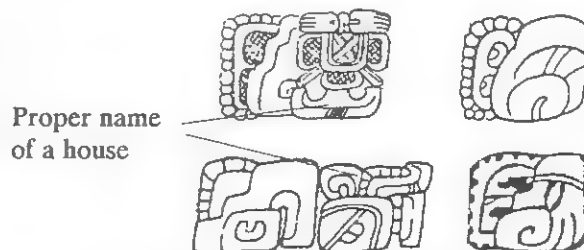
This verb is especially associated with the erection of monuments. Nikolai Grube has suggested a reading of *ts'ap*, "hincar algo en el suelo (to thrust something into the ground)." Peter Mathews had much earlier proposed *ts'ap* as the reading of a bloodletting verb on Bonampak Stela 2 based on its Tzotzil gloss. Laughlin (1975:100) enters *ts'ap* as "pierce/with needle, nail, or feather/, place in post hole/replacement post." Peter did not associate the bloodletting verb with the dedication glyphs, but the "posthole" association is clearly related.



This verb show the *lak* plate with a *k'in* sign infixed into the side. Since I can find no appropriate meanings for *lak* in either the Yucatecan or Cholan languages, I suspect that the verb refers to the lip to lip caches that were regularly used in dedication rituals from the Late Preclassic period onward.



The God N verb occurs with some frequency in the PSS on pottery as well as on monuments and buildings. No satisfactory has been proposed for this verb, although Barbara MacLeod is currently working on a promising proposal.



In his original exposition on the PSS, Mike Coe pointed out the substitution of a glyph that vague resembles a pyramid base or perhaps a shell for the

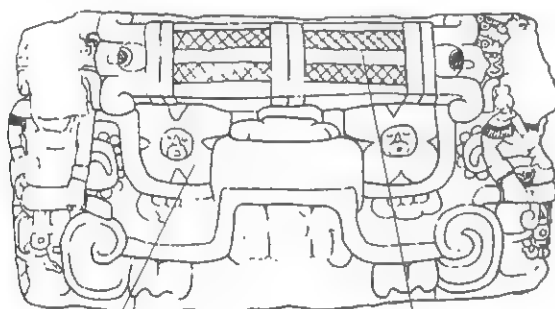
God N verb. This same glyph occurs as the dedication event on Classic period monuments, especially during the Early Classic period. Several examples are found on Late Classic monuments at Copán.



This verb also functions as the verb of the 819-day. Count expressions. In both contexts, it must have the meaning of "to place" or "to set up"--"to set up" stela or other monuments and "to set up" a sky quadrant for God K.

Proper Names

At Copán and elsewhere, the objects dedicated are recorded with their proper names. David Stuart was the first person to recognize such a proper name on Altar U at Copán. In the summer of 1986, he was checking my drawing of a glyph on its rear surface when he recognized that the glyph *k'inich*, "sun-eye" correspond to the image carved on the front surface. The altar is quite literally a "sun-eyed

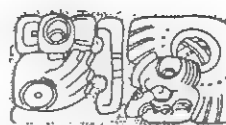


k'inich
"sun-eyed"

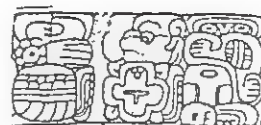


throne
stone

throne-stone," which is exactly the glyphic named recorded on its rear. From that example, he went on to recognize the name of Quiriguá Zoomorph B as "jaguar throne-stone" and to associate the names of many stela at Quiriguá and Copán with either the katun ending they celebrated as in "6 Ahau stone" or with the beings in the double headed serpent bars and headdresses of the stelae. We have since confirmed the pattern of proper names at almost all Maya sites.



Palenque House AD



Copan Altar S



Copan Altar G1



Copan Stela 9



Copan Stela C



Copan Stela D

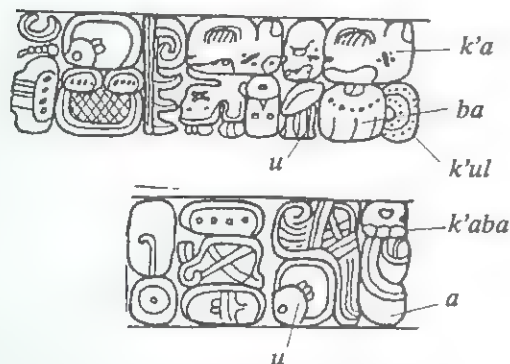
Typically the proper name with appears in a formulaic expression consisting of one of the dedication verbs, the proper name, the Glyph B elbow, and the category of thing to which the object belongs as in the examples below.

The Glyph B elbow

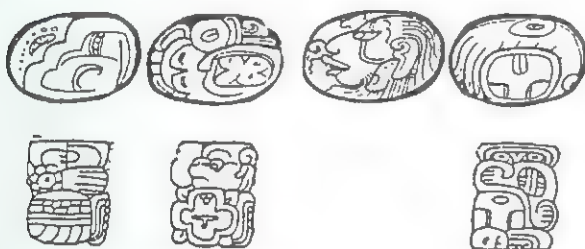
David Stuart recognized the pattern I discussed above during our work in the 1986 season. When I presented this pattern as it appears in the Group of the Cross at Palenque, calling the God C-in elbow" glyph a terminator for proper names. In the Advanced Seminar that followed that workshop, Judy Maxwell started using a reading of *u k'aba* "is its name" for the glyph. Shortly, thereafter, Nikolai Grube and David Stuart came up with the same reading independently, but David added the God C to the reading as *u k'u k'aba*, "is its holy name."



These readings can be confirmed by several substitutions. A large number of these Glyph B elbows have T228 a suffixed to them. At Copán, several have T501 ba infixed into the elbow. However, the two most telling examples have direct substitutions that confirm the value.



On the Casa Coloreda at Chichén Itzá has the normal elbow replaced by its phonetic spelling u k'a:ba.



On an Early Classic plate used in just this kind of dedication ritual, the text begins with the PSS introductory glyph followed by the shell dedication verb. The name of the plate, *u zac lak*, is followed by *u* and a glyph with a hand folded over a chuen glyph. the word for hand is *k'ab*. Furthermore, there is an *u k'aba* glyph with the same chuen glyph infixed in the elbow on Copán Altar S. Most interestingly, David Stuart (*Copán Note 2*) has shown that the huge stone censurs at Copán were called *zac lak tun*, stone versions of the same class of object. Since this plate was a cache vessel, it may be that the stone censurs of Copán also received offerings.

The kinds of objects that can be named

te-tun, "tree-stone" or stela. Some scholars have questioned the value of the "tree" sign as *te*, but the graphic image exactly matches the trees on the sarcophagus sides at Palenque. There iconic versions

have *te* signs infixed in them as phonetic keys to their pronunciation as *te*.



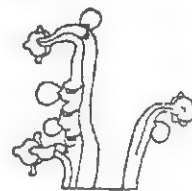
U lacam tun



te-tun



acante from the Dresden codex



Sacrc. side

On Copan Stela A, *lacam tun*, "large (huge) stone" is used to refer to the stela.



Holy Copan Na



y-otot

y-otot



various spellings of *y-otot*

The Maya used two words for house. *Otot* meaning a "house that is possessed by someone" and *na*, a building that is not owned. The concept of ownership is inherent to the word *otot*.



a



b



c

(a) stands for flat sided objects like a rectangular altar at Copan and the sarcophagus at Palenque; (b) *k'an-tun*, the Tablet of the 96 Glyphs at Palenque and a round altar at Tonina; (c) *u pacab*, "his lintel."



buch (?) "seat"

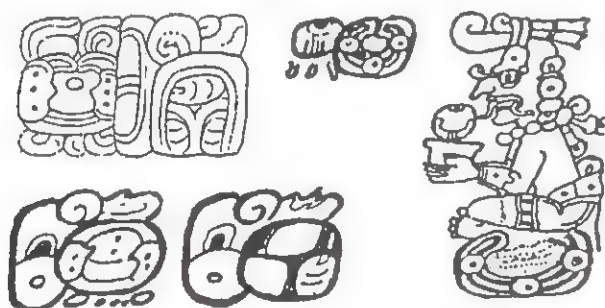


u chumib, "his seat"

Location and Toponyms

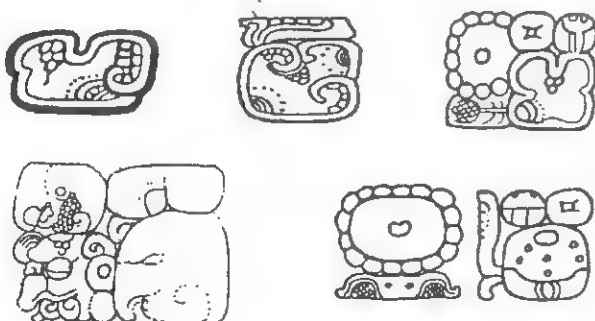
David Stuart and Steve Houston have made a central contribution to Maya studies by identifying place name or toponym in the inscription. David has especially worked with the inscriptions of Copán and found that there are several important toponyms in the Copán corpus.

Some of these locations are identified by comparison to other inscriptions, such as the Dresden



Codex or pottery scenes. One such location, a "black hole" and a glyph for a watery place are found both in the codices and on the "Cosmic plate."

Other toponyms can refer to features of the



landscape, such "mountains" (see Stuart's *Ten Phonetic Syllables* paper)..

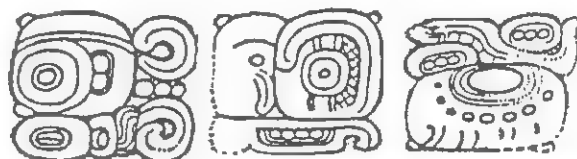


Yaxha (after David Stuart)

"it happened at *Sacnab*" (the other lake at Yaxha)



The plaza next to the river at Yaxchilan



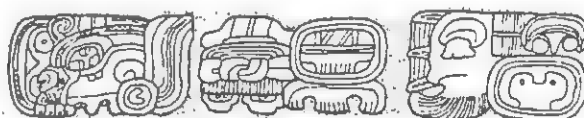
uti, "it had happened"

T606 and "impinged bone"

Lake Petexbatun?

Other toponyms included bodies of water. Some of the toponyms can refer to kingdoms as geographical location or they may refer to locations within a kingdom.

The latter type will often follow *utih* "it had happened" (see the Petexbatun and Sacnab examples above).



Tikal Stela 39



"Chuen-Skull glyph"

Tikal Stela 31



Tikal Stela 31



Tortuguero M6

Other examples, especially in the Early Classic period, can appear with the "chuen" skull glyph.

One type of toponym appears in a formula in which the toponym is followed by the "sky" glyph and Thompson's "impinged bone." This "sky-im-



819-day Count passages from Palenque

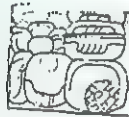


Direction from the altar to Copan Stela 13

pinged-bone" expression also appears with direction glyphs, especially in the 819-day Count.



Copan Emblem Glyph as a location



Copan



Palenque



Tikal

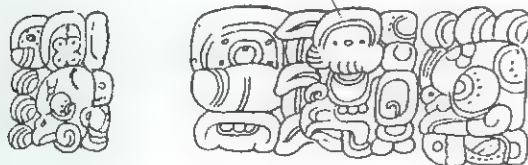


Tikal

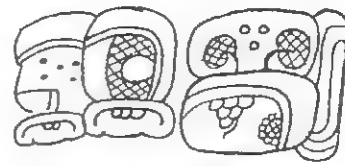
Cosmic Pot

The "sky-im-pinged-bone" expression also appears regularly with toponyms as well as the directions. The impinged bone usually has phonetic *na* attached to it and it can also appear in a bird head form which is distinguished by a tri-foil shape in its eye.

head variant of "impinged bone"



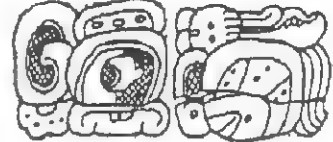
On Caracol Stela 3, this tri-foil glyph is one of the variant listed by Thompson under T628.



location on PN Throne 1



The Great Plaza? at Tikal



Verb and location from Tablet 14 at Palenque

T606 (also with a *na* suffixed to it) also appears in the locative phrases. T606 and the "impinged bone" could possibly be different ways of spelling the same locative, but T606 rarely appears with the "sky" glyph. Stuart and Houston have pointed out a possible substitution to T606 for T565, suggesting it could be the locative *tan*. The Cordemex (769) glosses *tan* as "in front" and "in the middle of something." For Chorti, Wisdom lists *tam* as "center, middle, interior, depth," but this may be cognate to the Yucatec term *tam* "depth" and "deep."

Simple Clauses

The texts on the rims of pottery, those that tag objects for ownership, and other that identify figures in scenes regularly do not have a temporal expression in the clause. Tagging expressions will often begin, for example, with a possessed noun in a stative expression saying that the object belongs to someone. Pottery texts are more complicated in that they include a verbal phrase, but the essential purpose was the same--to name the patron and sometimes the artist of the pot. These name-tagging (first discovered by Peter Mathews) and dedicatory type texts are the simplest kind used by the Maya.

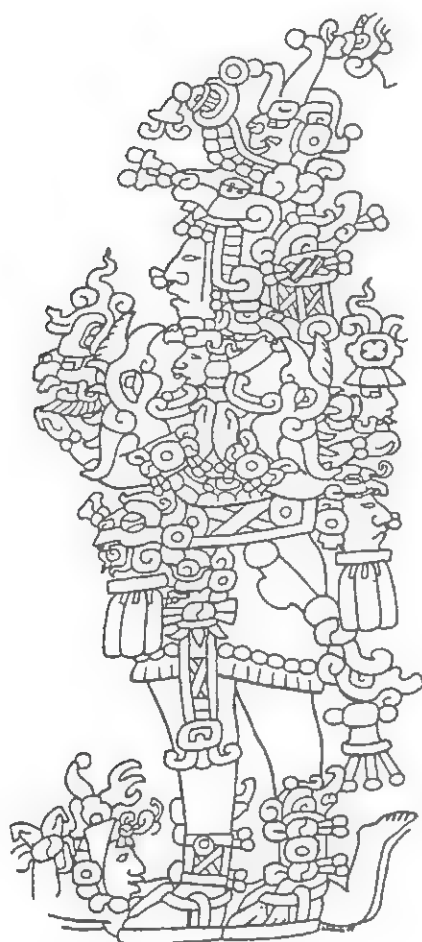


u tup "his earflares" from Altun Ha



u bak "his bone" from Tikal Burial 116

Texts that regularly recorded history begin with a temporal statement that established the timeframe--often the exact day--of a particular event. Such



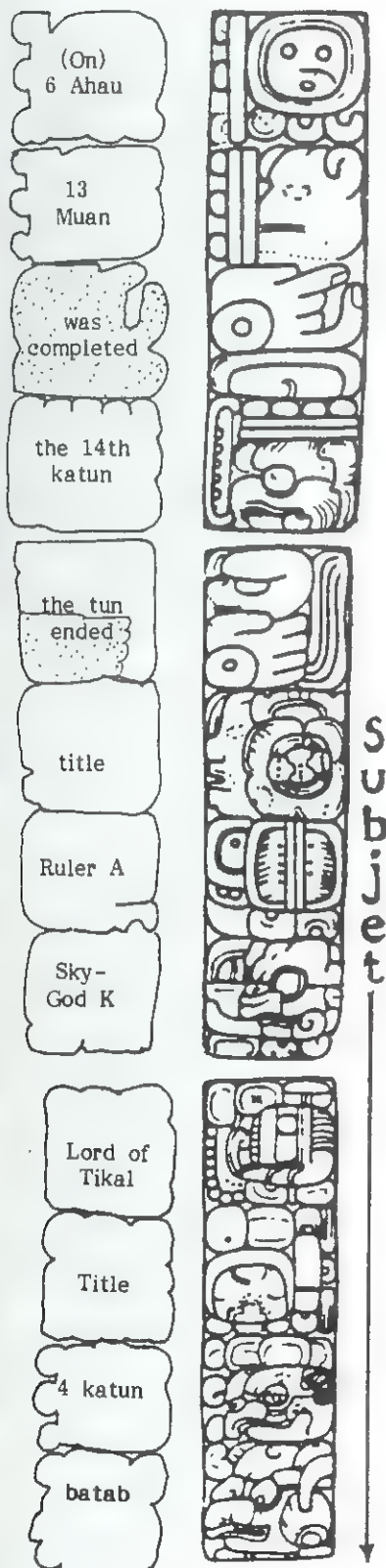
		ISIG with the patron of Yaxkin
		8 baktuns
		14 katuns
		3 tuns
		1 uinal
		12 kins
		1 Eb
5th Lord of the Night		chum "seating"
Yaxkin		he was seated
Name		Balan-Ahau
Chan		title

The Leiden Plaque (drawing of L. Schele)

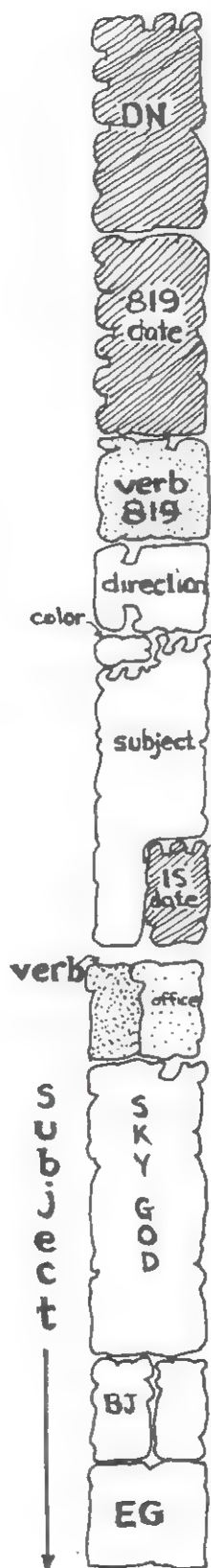
clauses will have a verbal phrase and an actor following the date. These components of temporal, verb, and subject can be elaborated in a different ways. What and how these texts are elaborated reinforce different parts of the message and constitute a large part of the art and literary tradition of Maya writing. The Leiden Plaque, for example, begins with temporal information stated as a date in the Long Count, a system recording the time elapsed since the zero date in the Maya Calendar, 13.0.0.0.0 4 Ahau 8 Cumku (or August 11, 3114 B.C.). The Calendar Round date and the Lord of the Night, G5, complete the calendric information. Stela 16, a much later text from Tikal, also opens with temporal information, but recorded as a Calendar Round date locked into position by the noting that on this day the 14th katun ended. In Mayan languages, cardinal numbers (14th) are dis-

tinguished from ordinal numbers (14) by the use of a possessive pronoun. The sign filling the left edge of the glyph block is one of the Set A pronouns that are used to possess nouns.

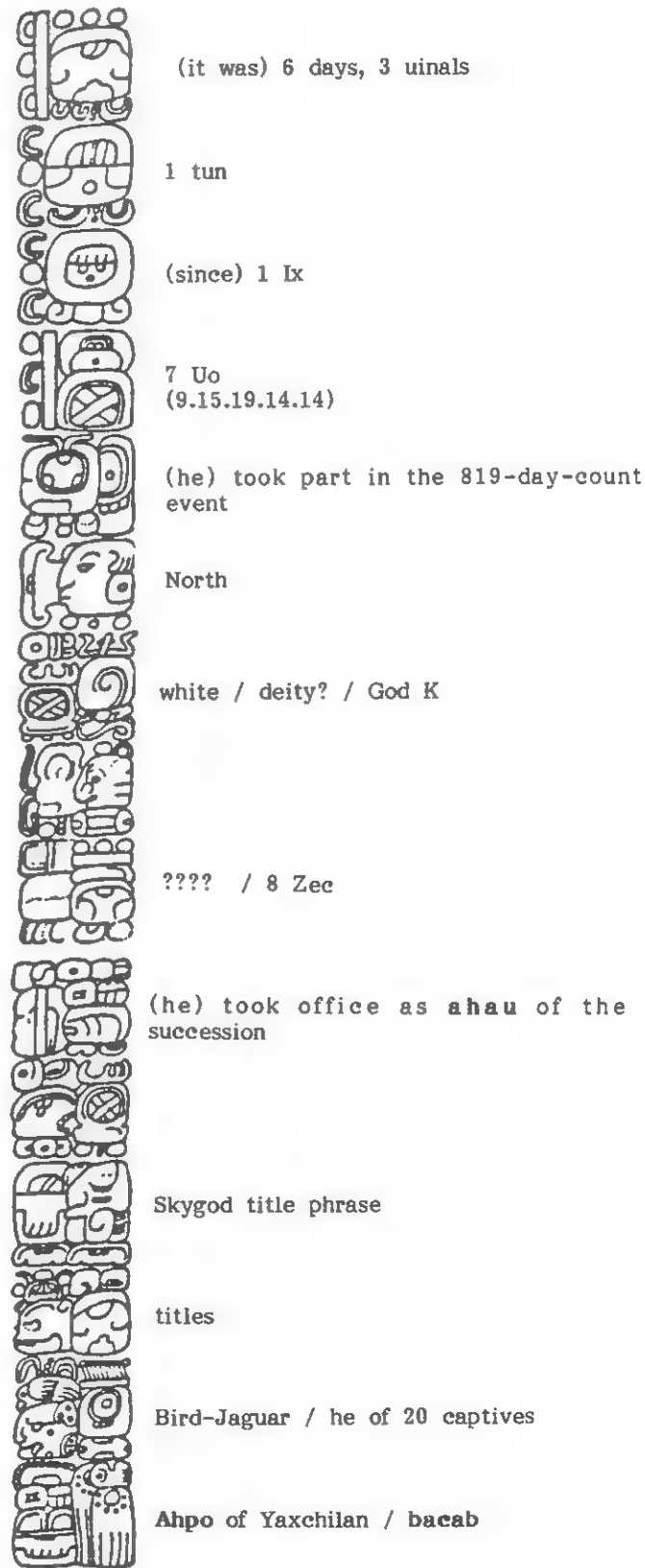
On the Leiden Plaque, the verb is the T644 "seating" (chum) glyph, and since this verb is usually followed by a title phrase recording the office, I have assumed that the vulture glyph in the next block records the office. On Stela 16, the verbal expression contains two phrases. The first records that the "14th katun was completed," and the second that "the tun ended." The Leiden Plaque name phrase contains three glyphs, while Stela 16 records the protagonist with his personal name, a sky-God K title, the Emblem Glyph, a title based on a waterlily and uinal glyph, and a notation that this fellow was a "four-katun lord" (he was between 40 and 60 years of age at the time of this event.)



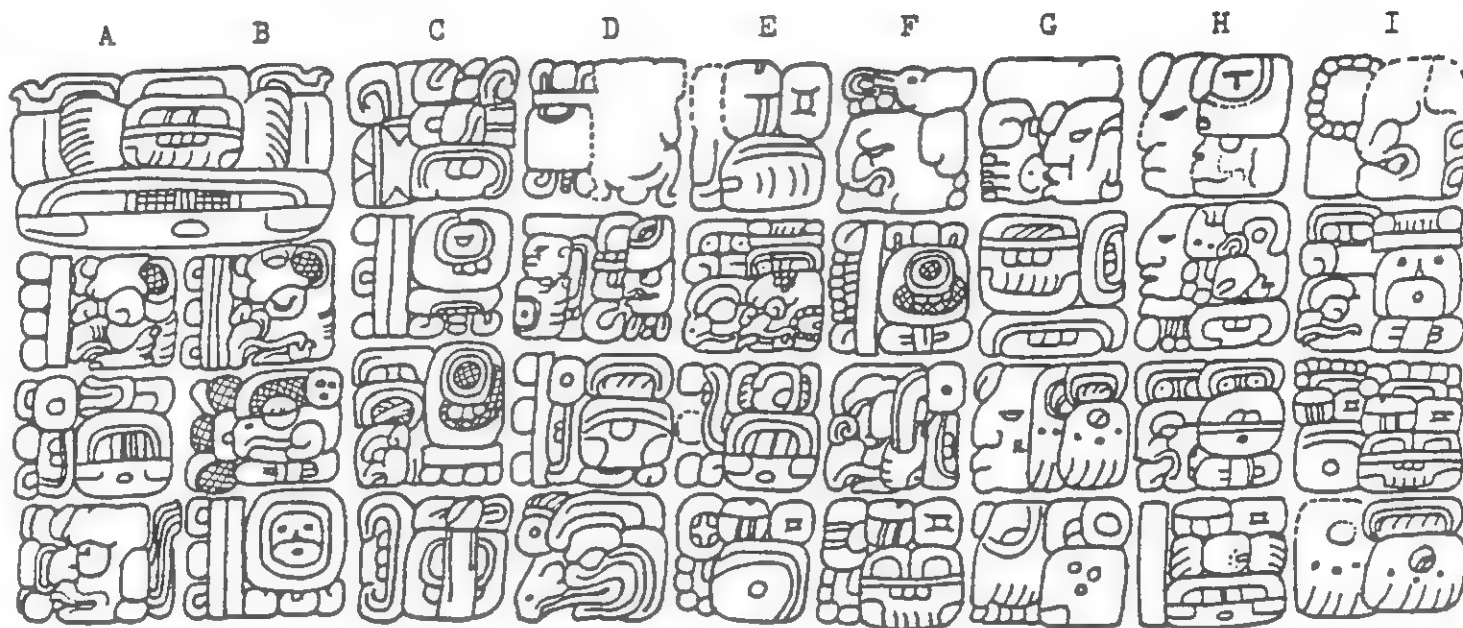
Tikal Stela 16
(drawing by W.R. Coe)



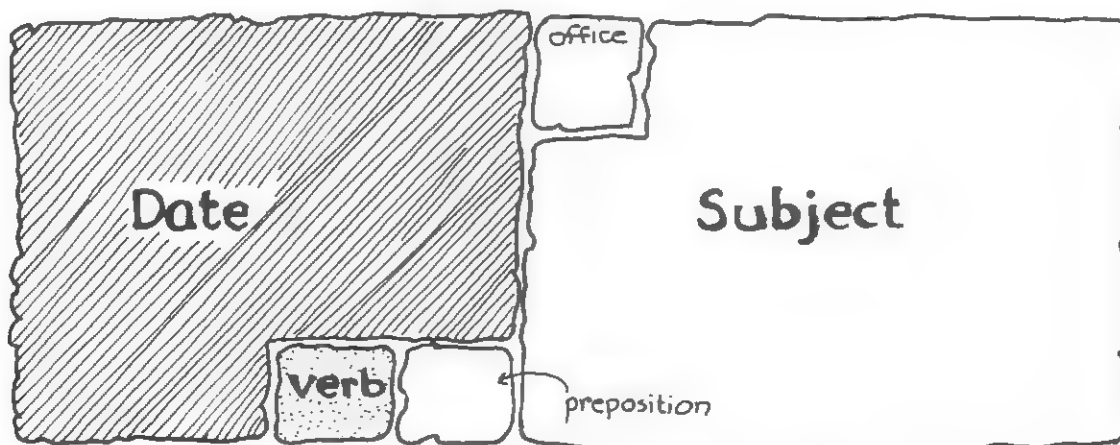
The opening section of the text is not included in this drawing. It records the IS 9.16.1.0.0 11 Ahau 8 Zec, 6Y, 12D, 5C, X, and 30A, plus an additional phrase often appearing with IS texts at Yaxchilan.



Yaxchilan Stela 11, side



ISIG with patron of Tz'ec		G9 F	Z	Ahpo of the success.	Bird- Jaguar	child of woman	Lady Ik- Skull	Shield- Jaguar
9 baktuns	16 katuns	12 D	5E X	captor of Ah Cauac	He of title	sky	Lady of the God C title	captor of Ah Ahauual
1 te tun	0 uinals	B 9A	8 te Tz'ec	3 katun	batab	Lady Bacab	child of	Ahpo of Yaxchi- lan I, II
0 kins	11 Ahau	(he) took office	as	Ahpo of Yaxchi- lan I	Ahpo of Yaxchi- lan II	parent- title	5 katun ahpo	Bacab



Yaxchilan Stela 11, front lower register

Elaboration of a simple clause and redundancy of information

The text from the sides and front of Yaxchilan Stela 11 illustrate both the redundancy characteristic of Maya public inscriptions and the variation in phrase structure used to enrich the style of presentation and relieve the boredom of repetition. The text from the sides records the accession of Bird-Jaguar of Yaxchilan. It begins with a Long Count date (missing from the illustration), elaborated to include a the Lord of the Night, Glyph Y passage, the age of the moon, a specialized supplementary series peculiar to Yaxchilan inscriptions, and the station in the 819 day count (included in the illustration). The verb is the T684 "bundle" glyph for accession, followed by a prepositional phrase recording the office as *ta ahau le*. The text ends with a relatively simple version of Bird-Jaguar's name phrase, including a "skygod" title sequence (composed of *te-cauac* glyph, a deer horn over an inverted vase, the sky glyph, a supernatural head (skygod), a skull and a uinal compound), followed by Bird-Jaguar's personal name, a title noting him as "he of 20 captives," the Emblem Glyph, and the *bacab* title.

The same information is repeated in the lower register on the front of Stela 11. The date is again recorded in a Long Count notation with the Lord of the Night, Glyph Y, and the age of the moon; the 819 day count station is not repeated on the front. The verb is the same as on the sides, but it is elaborated graphically to include three glyph blocks rather than one. Bird-Jaguar's name phrase, in contrast to the sides, features different information. It begins with Bird-Jaguar's personal name glyph, followed by "captor of Ah Cauac," "he of twenty-one captives(?)," "3-katun *batab*," and both Emblem Glyphs. The remainder of the text is an extension of the standard name phrase recording Bird-Jaguar's parentage. The mother's name, "Lady Ik-Skull Sky Lady of Blood Lady *batab*," follows the T670 "child of mother" glyph and the father's name phrase follows T712 "child of parent" glyph.

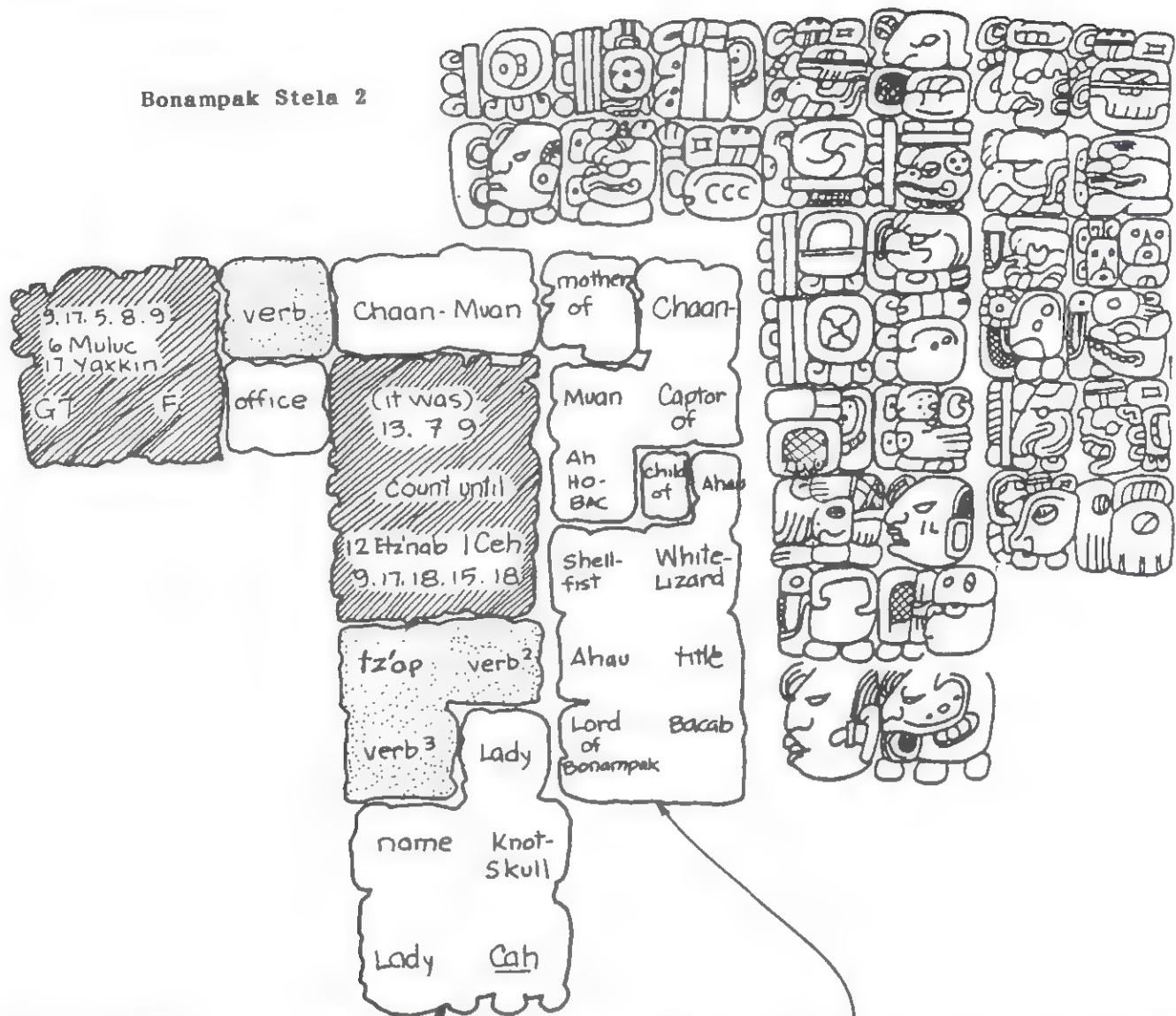
Both texts utilize a simple verb-subject clause, but each features a different kind of information. In both texts, the date is given in Long Count with the Lord of the Night, the Glyph Y passage, and the age of the moon, but the 819 day count and the special supplementary series is found only on the

sides. The verbal phrase is the same in both texts, but it is graphically elaborated on the front. It is in the name phrases that the full difference can be seen. On the edges, Bird-Jaguar is recorded with the "sky-god" title, his personal name, a number of captives title, a single Emblem Glyph, and the *bacab* title. On the front, the "sky-god" title is eliminated, and "captor" and "numbered katun" titles are added to the name phrase. Both Emblem Glyphs are used, and the full-name phrase is extended to record the names with titles of Bird-Jaguar's mother, Lady Ik-Skull, and father, Shield-Jaguar. This last information is repeated twice more on Stela 11; his full figure portraits of his parents occupy the upper registers on the front and rear of the monument.

The same accession information is again recorded on Lintel 1 (the first text discussed under auxiliary verbs). In that text, the date is recorded as a Calendar Round with the Lord of the Night and a verbal couplet is used to record the event--the display of God K. The name phrase is elaborated in yet another pattern that includes the "sky-god" title phrase, Bird-Jaguar's personal name, "he of twenty captives," two captor titles, two numbered katun titles, both Emblem Glyphs, and "west *batab*."

One of the most interesting of these very elaborate name phrases is found on Bonampak Stela 2. The text consists of two clauses, the first recording "(on 9.17.5.8.9) 6 Muluc 17 Yaxkin, G7 was in office, he took office as *ahpo Chaan-Muan*." The second clause begins with a DN of 13.7.9 counting until the day 12 Etz'nab 1 Ceh (9.17.18.15.18). The second verb contains three, perhaps four, expressions, all relating to the second event--blood-letting. The name of the subject occupies the remainder of the text (E6-G6). E6E8 are the personal name and titles of the female subject--Lady Knot-Skull, Lady *Cah*. F1 is a glyph identified by Peter Mathews as a relationship between a mother and child that seems best paraphrased as "mother of." It is followed by the name phrase of her child, "Ahpo-Chaan-Muan, captor of He of Five Skulls." The second part of Chaan-Muan's appellative phrase names him as "child of White-Lizard." The relationships stated in this text are confirmed on Stela 1, where Muan-Chaan is named as "child of the woman, Lady Knot-Skull" and "child of the man White-Lizard Lord of Bonampak." The second clause of Stela 2 names the subject of the verb as "Lady

Bonampak Stela 2



Bonampak Stela 1



Knot-Skull, mother of Chaan-Muan, who was child of White-Lizard."

The imperatives that may have governed the choice of title sequences in different texts are not yet understood. Particular rites may have demanded particular title sequences, but it seems evident that to some degree, the amount of space and importance of the text contributed to the amount of elaboration present. In addition, each site seems to

have followed local traditions as well; many title sequences are limited to one site or region, while others appear at all sites.

The *Ti* Constructions

In 1974, Jeff Miller and I were going over copies of Ian Graham's field drawings when we noticed a possible identification for T757, previously shown by

Proskouriakoff to be a rodent, rather than a combination of dog and rabbit Thompson called a jog. In follow-up studies, I noticed a regular occurrence of this rodent head in the position of a verb and followed by a *ti* sign and additional glyphs. Although I had no explanation of this pattern, I anticipated that it was of importance, and when David Stuart and I were having an "intense" discussion of these structures in the inscriptions of Yaxchilan, it occurred to me to ask a linguist if similar patterns were known in modern Mayan languages. Nicholas Hopkins and Kathryn Josserand, who were conducting field studies in Chol, happened to be in the next room, and when asked if they knew of anything in spoken Maya that might explain these glyphic structures, they immediately associated them with exactly parallel constructions from spoken Chol.

In the inscriptions, these kinds of constructions have the following characteristics:

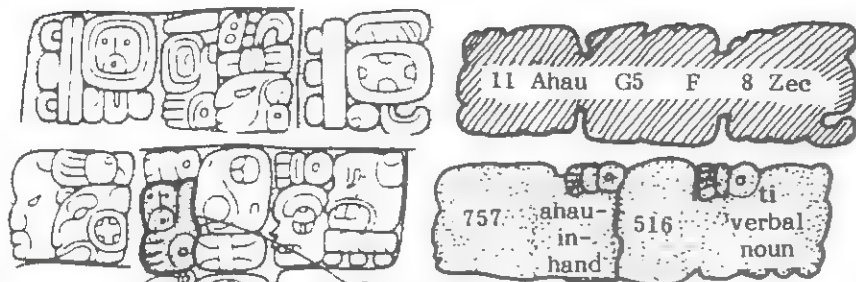
- (1) One of two special verbs is followed by a phrase containing glyph(s) that function in other contexts as main verbs, as denoted by both clause initial position and occurrences with known inflectional affixing. The second part of these constructions can appear in two forms: (1) a glyph or glyphs that follows the first verb and carries normal verbal affixing or (2) a glyph or glyphs that follows the first verb and a *ti* sign and is stripped of all verbal affixing.
- (2) the verbs appearing in the first part of such constructions occur with many different actions, while the glyphs in the second part of the scene co-vary with some component in the accompanying scenes. Therefore, the specification of action or state resides in the glyphs of the second part; the initial glyphs have some general function common to these structures.
- (3) Two verbs have been found in the first part of these special structures: T757 which occurs both as a general verb followed by semantically specific complements and as an independent verb without complements; and T516.102, which so far as is known can appear only in "verb + *ti* + complements."

The linguistic structures that parallel these glyphic structures behave in the same manner. There is a set of verbs in Chol that occur in complex

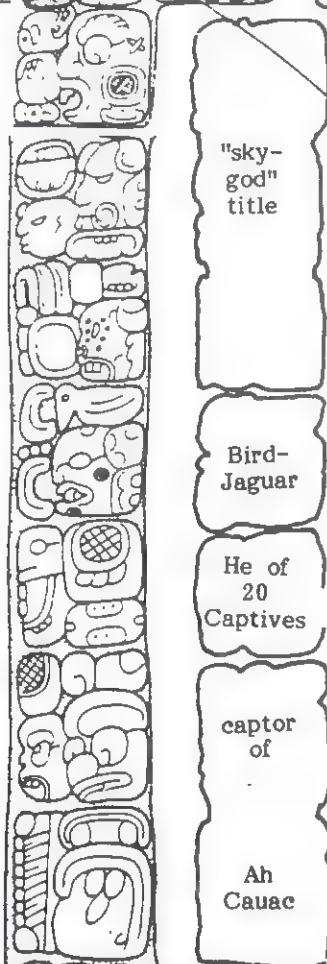
structures of two types: (1) verbs followed by other verbs where both have inflectional affixes, and (2) verbs followed by *ti* and a verbal noun. In the latter case, only the first verb is inflected; the second appears in the form of a noun derived from a verb. The verbs appearing in these contexts are of two types: (1) verbs that occur only in these situations and never as independent verbs, and (2) those that occur as both independent verbs and as these prefixed verbs. Both types of verbs give information about the aspect of the action, as in "I began to run" or "I finished running." Applying evidence concerning the function of these linguistic structures to their corresponding structures in the inscriptions, we called them auxiliary verb constructions, based on the definition of an auxiliary verb as one "that helps to form the voices, moods, tenses, etc. of other verbs." In the case of the *ti* constructions both in spoken language and the inscriptions, the first verb is syntactically the main verb while the word following *ti* is a noun, but the particular action or state is semantically specified in the *ti* + verbal noun phrase, not the main verb.

An examination of several sets of texts with *ti* constructions will illustrate these constructions as they are used in the Classic inscriptions. Yaxchilan Lintels 1 and 3 show scenes with individuals holding or displaying God K scepters on two different occasions. Lintel 1 begins with the date 11 Ahau 8 Zec, previously discussed in the Stela 11 texts as the date of Bird-Jaguar's accession. In the Stela 11 texts, the verb recording accession is T684, but here it consists of a couplet construction, contrasting two *ti* constructions. The first construction uses the T757 verb, followed by *ti* and a hand with up-raised thumb in which rides an ahau glyph. The second uses the head variant of T516, followed by *ti* and a two-glyph phrase. The rest of the text records the subject, Bird-Jaguar, in a very elaborate name phrase.

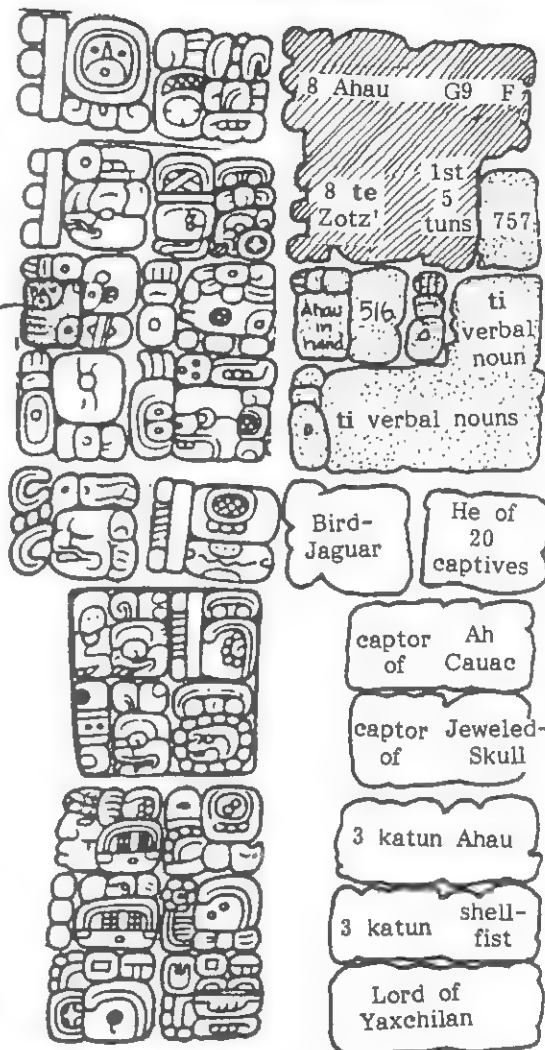
Lintel 3 also records a verbal couplet with the T670 ahau-in-hand glyph, but the date is 9.16.5.0.0, four tuns later than the Lintel 1 accession date. The first part of the verbal couplet is identical to Lintel 1, the T757 verb + *ti* + T670 ahau-in-hand, but the second is different. It has the T516 verb and *ti*, but ^{the} glyphs that follow are different. Since the scene shown on both lintels is the same, the ahau-in-hand glyphs should refer to the display of the God^K scepter; and since the dates and therefore



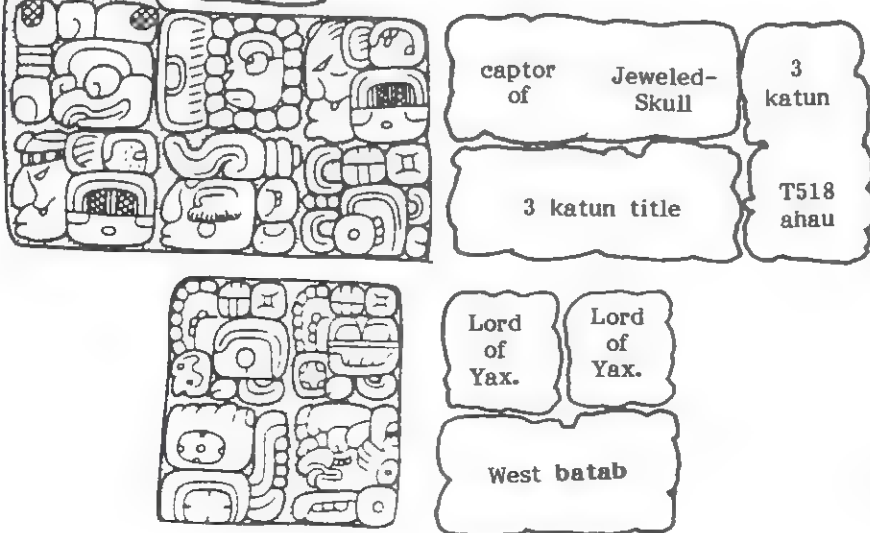
Yaxchilan Lintel 1



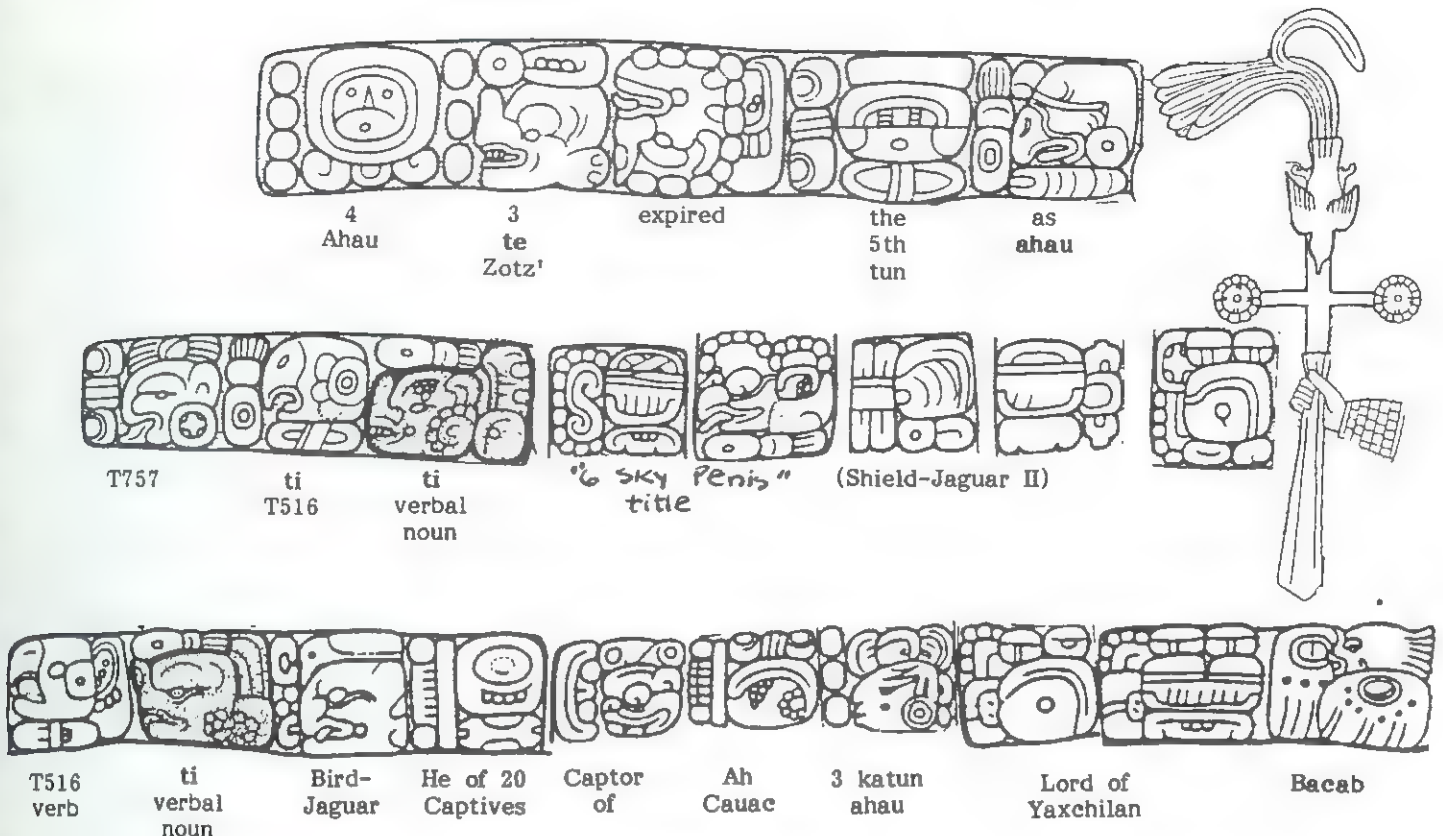
Yaxchilan Lintel 3



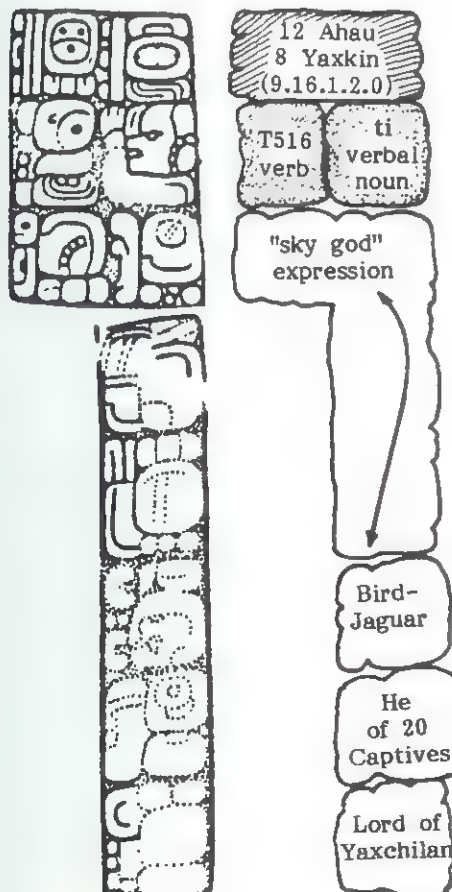
Palenque Tablet XIV



Ahau-in-hand variants with semantic determinatives and God K-in-hand substitution



Yaxchilan Lintel 2

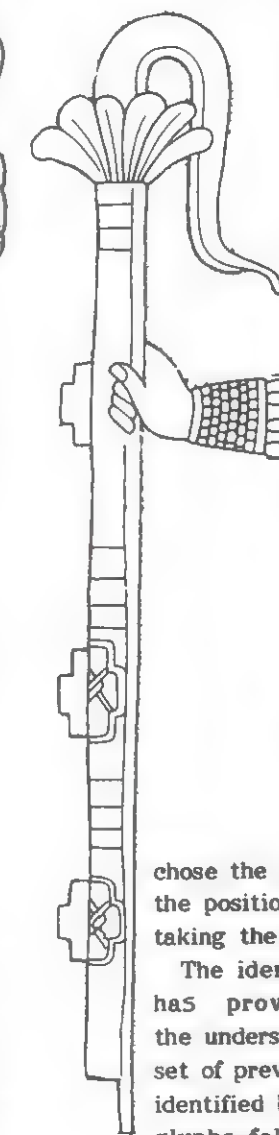
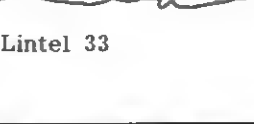
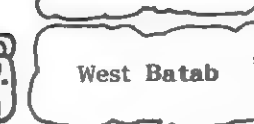
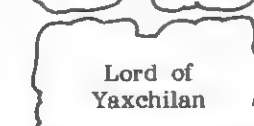
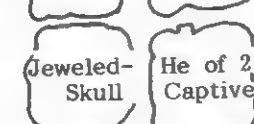
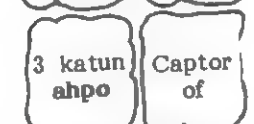
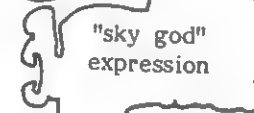
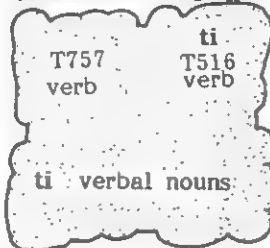
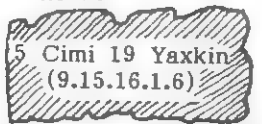
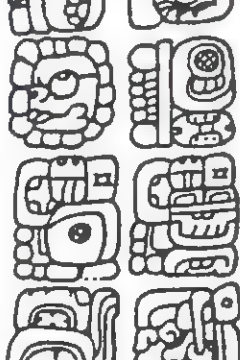
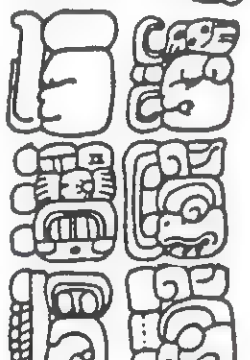
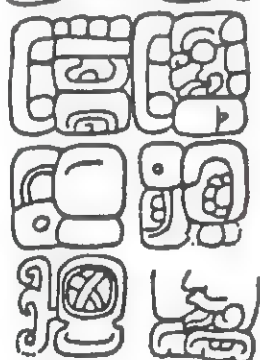
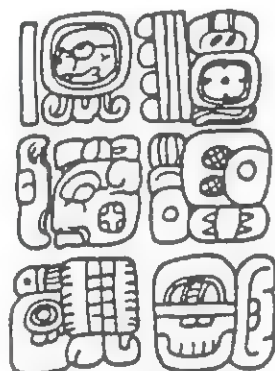
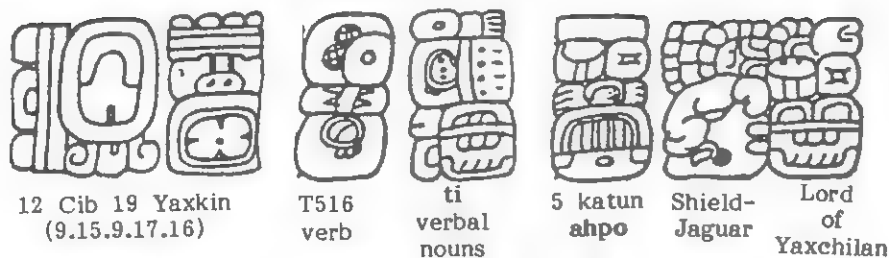


Yaxchilan Lintel 5

occasions of the display of God K are different, then the second verbal phrase should record that difference. This supposition can in part be confirmed by a comparison of the ahau-in-hand phrase to the text on the Tablet from Temple XIV at Palenque. The scene shows a woman holding God K, while the text records the first mythological enactment of this rite some 828,000 years in the past. The verb recording this event occurs three times, twice as "ahau-in-hand" and once as "God K-in-hand". The ahau sign is a substitution for the God K mirror in these expressions, confirming that the Yaxchilan expression refers to the holding of God K by the pictured figures.

Haruo Aoki heard the structural argument for this identification at a previous workshop and saw a connection between the act of holding a vertically aligned object and the position of the hand that explains the configuration of the T670 hand. He noticed that in the instant immediately before an object is grasped, the hand is positioned with the thumb upright and the fingers extended at right angles exactly as portrayed in T670. The Maya

Yaxchilan Stela 11



1 Eb

end of

Yaxkin
(9.16.17.6.12)

T516 verb

ti verbal nouns

3 katun ahpo

Bird-Jaguar

Captor of

Ah Cauac

He of 20
Captives

Lord of
Yaxchilan

Yaxchilan Lintel 9
(Drawing by Ian Graham)

chose the instant before the hand closes as the position characteristic of the action of taking the scepter.

The identification of *ti* constructions has proven to be extremely important to the understanding of the glyphic system. A set of previously unknown events has been identified by the recognition that it is the glyphs following the *ti*, rather than those preceding it, that semantically designate the event or rite pictured. As shown in the illustrations, a bat with infixed and suffixed *cu* designates a rite in which "tree" scepters are displayed. A combination of the lunar sign, T563 *ca*, and a sky glyph designates the display of cloth scepters; the

Yaxchilan Lintel 33

verbal nouns associated with this rite are distinct from the *cah* office identified by Stuart, but I suspect there is some overlapping of the two complexes.

As important as the identification of previously unknown events has been the recognition of equivalency of verbs appearing in different syntactical forms. Before the recognition of auxiliary verbs, we had to assume that glyphs following the *ti* constructions were fundamentally different than the same glyphs when they occurred as main verbs. Now we know they are simply different syntactical forms of the same verb; the grammatical differences in the forms do not effect the basic meaning of the verbal phrase. A summary of these auxiliary verb and *ti* constructions with their associations with particular rites or patterns of events is listed in my book on verb constructions.

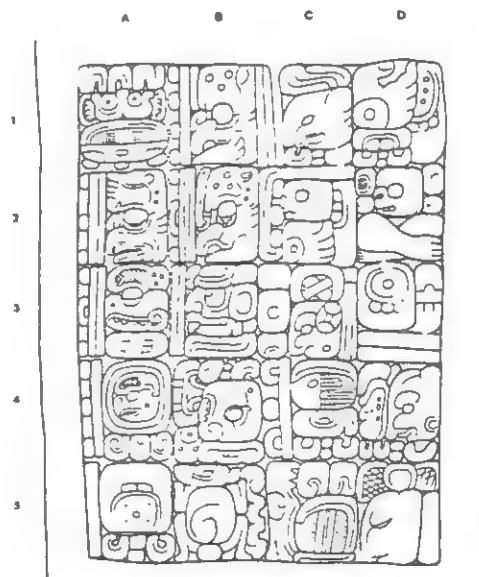
Multiple Clauses and Linkage with Distance Numbers

Many Maya texts record more than one clause, often linking them temporally by Distance Numbers. Events important to public legitimization of the rulers were featured in these kinds of texts so that the patterns of association tell us something about the strategies of social charter that worked in Maya society. These associations usually fall into one of the following categories: (1) events within the life of one person, such as birth and accession, accession and period-ending rites, accession and building dedications, etc.; (2) events in the lives of different persons, especially successive rulers; (3) events in the lives of living rulers and historical ancestors; (4) events in the lives of mortals and legendary or mythological personages.

When these events are linked into more complex syntactical structures, the scribe could vary the elaboration, style, syntax, and detail recorded in each section of the text. Clauses relating events widely separated in time or with different agents often retain all syntactical components, but when events within the life of one person are related or if missing information is recoverable from the context, redundant information could be eliminated. For example, in English we can say "He entered school in 1978. He graduated four years later" or "He graduated four years after he entered school in 1978" or "He entered school in 1978 and graduated four

years later." The information imparted in these sentences is equivalent, but the syntactical structure is different in each. Exactly this kind of syntactical variety is used in Maya texts.

The four clauses on Yaxchilan Lintels 29, 30, and 31 record a series of events in the life of Bird-Jaguar, culminating perhaps with the dedication of Structure 10, the building housing these lintels. The first clause begins on Lintel 29 with the Initial Series Date recording 9.13.17.12.10 8 Oc 13 Yax. The addended information about the date continues to Lintel 30, which opens with a DN and the parenthetical 819 day count passage. The haab position for this opening date is recorded at the top of the third column as 13 Yax. The first thirty-one glyphs from this text are used to record nothing more than information about the date. The event occurring on this date was the birth of Bird-Jaguar. The second clause begins with a DN linking the birth to Bird-Jaguar's accession, recorded at H5 by the T684 verb. The clause continues to Lintel 31, where the first three glyphs record the subject as Bird-Jaguar.



Yaxchilan Lintel 29

ISIG with Patron of Yax, 9.13.17.12.10 8 Oc
Lord of the Night: G7, F
5Z, Y
Lunar Series: 15D, 5thC, X₄, B, A10
Supplementary Series

The third clause begins with another DN, linking the accession to another event recorded in a couplet expression. The subject of the first part of the couplet has the **Mah K'ina** title preceding the front head of the Celestial Monster and **na**. The subject of the second verbal phrase is Bird-Jaguar. These two verbal phrases have not been deciphered, but since the second half of the couplet includes a **tu otot** glyph, I suspect it may record the dedication of Structure 10. The final clause records the "expiration of the 17th katun" an event that does not require an agent. Paraphrases of these four clauses are as follows:

(On) 9.13.17.12.10 8 Oc
 G7 ruled and age of the moon
 (it was) 17 days, 1 uinal, 1 tun (since)
 1 Ben 1 Chen he did the 819 DC event
 East Red God K 1-Rodent-Bone
 13 Yax he was born Bird-Jaguar,
 He of 20 Captives, Lord of Yaxchilan

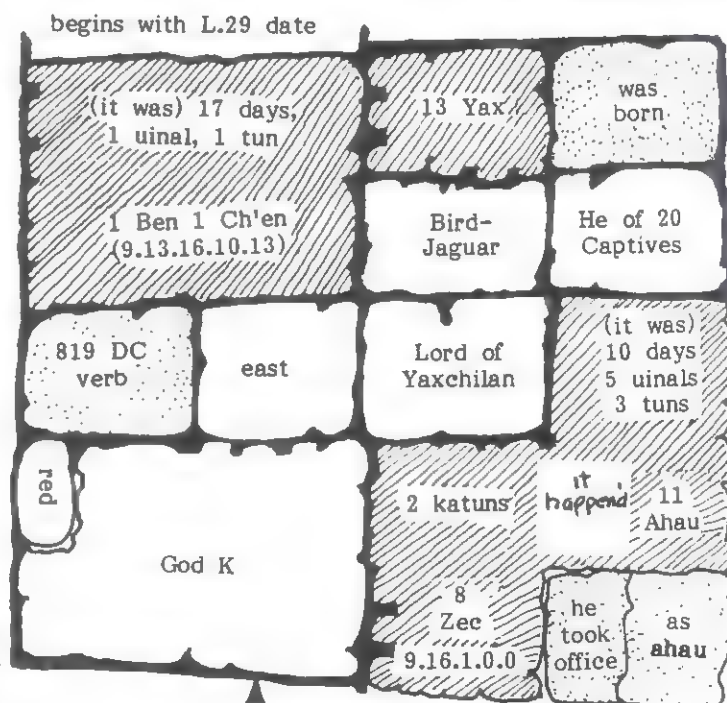
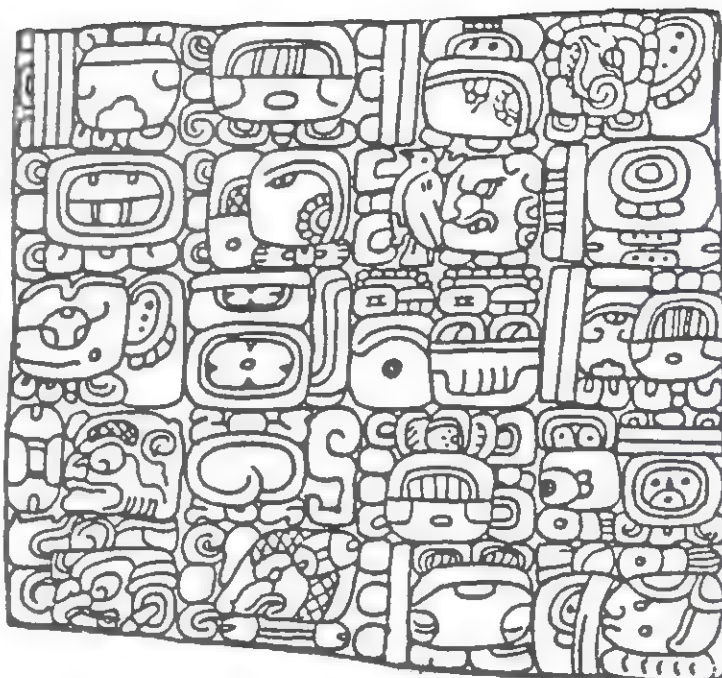
(it was) 10 days, 5 uinals, 3 tuns, 2 katuns
 count until 11 Ahau 8 Zec
 he was inaugurated as **ahau**
 Bird-Jaguar, He of 20 Captives,
 Three Katun Lord, Lord of Yaxchilan

(it was) 0 days, 0 uinals, and 13 tuns
 count until 2 Ahau 8 Uo
 he did the fire event Mah Kina Itzamna
 he placed "in his house"
 Bird-Jaguar, Three Katun Lord
 Lord of Yaxchilan

(it was) 0 days, 0 uinals, 7 tuns
 until the quarter katun 13 Ahau 18 Cumku
 expired the tun, the 17th katun

The texts from Stela 12, located adjacent to Stela 11 (see "Elaboration" section), also use a multiple clause structure to link different events: Bird-Jaguar's accession and the death of his father, Shield-Jaguar. The text is paraphrased as follows:

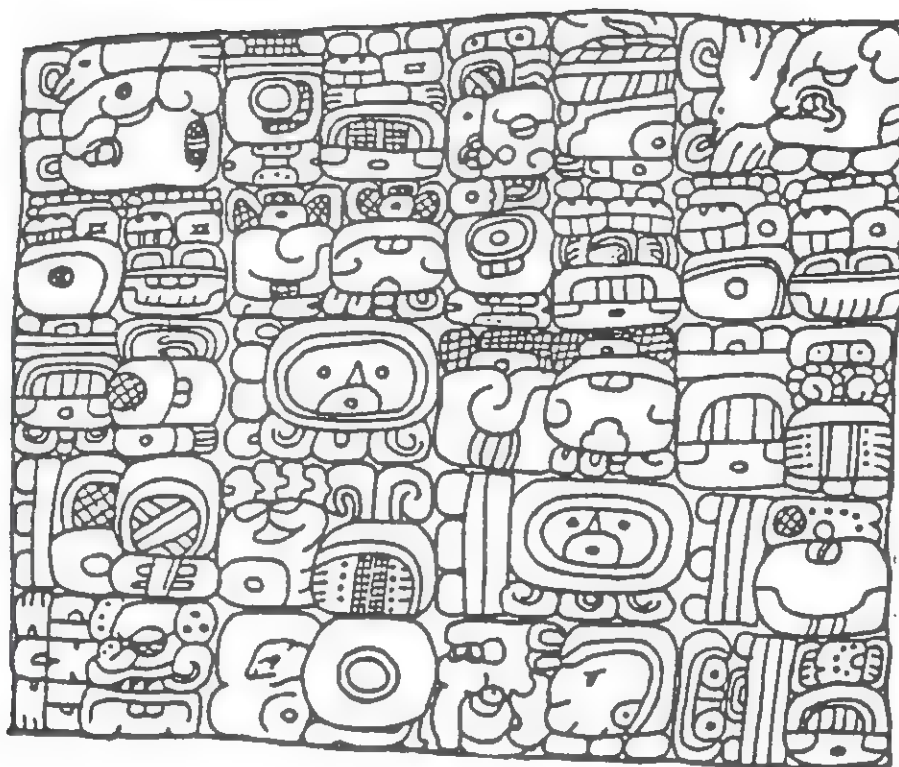
(On) 6 Ix 12 Yaxkin he died
 "Shell-fist lord," Five Katun Lord
 Shield-Jaguar, Captor of Ah Ahau



Clause 1

Clause 2

Yaxchilan Lintel 30



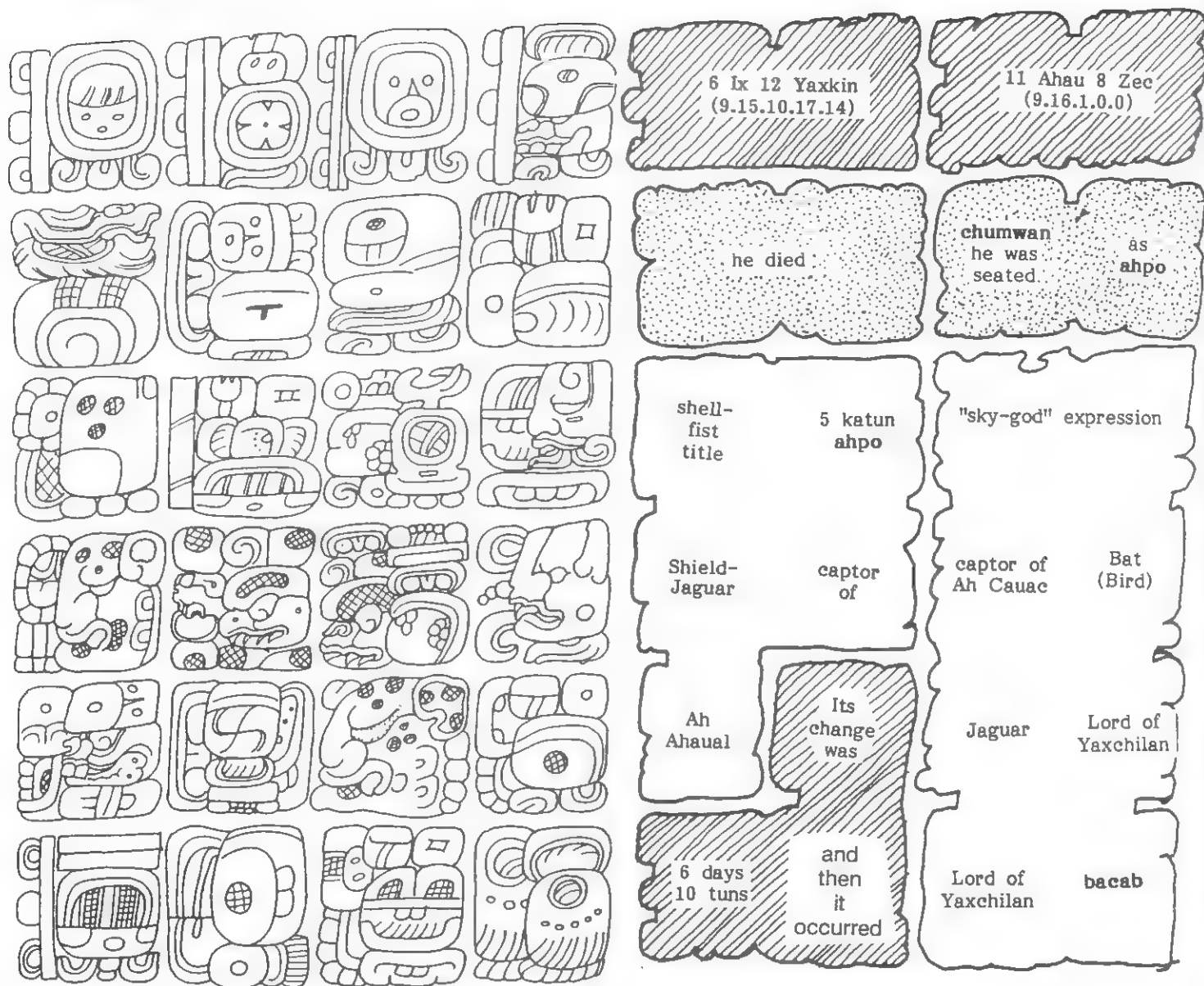
continuation
of clause 2
from L.30

Bird- Jaguar	He of 20 Captives	3 katun ahau	<i>u k'aba</i> is its name	it is his house	Bird- Jaguar
Lord of Yaxchilan	(it was) 0 days 0 uinals	He of 20 Cptv	3 katun lord	Lord of Yaxchilan	
12 tuns	and then it occurred	2 Ahau	(it was) 7.0.0	it will occur	
8 Uo 9.16.13.0.0	it was dedicated	13 Ahau 18 Cumku (9.17.0.0.0)			
the Mah K'ina Itzam Na	Chum ?? wi	it will end		the 17th katun	

Clause 3

Clause 4

Yaxchilan Lintel 31



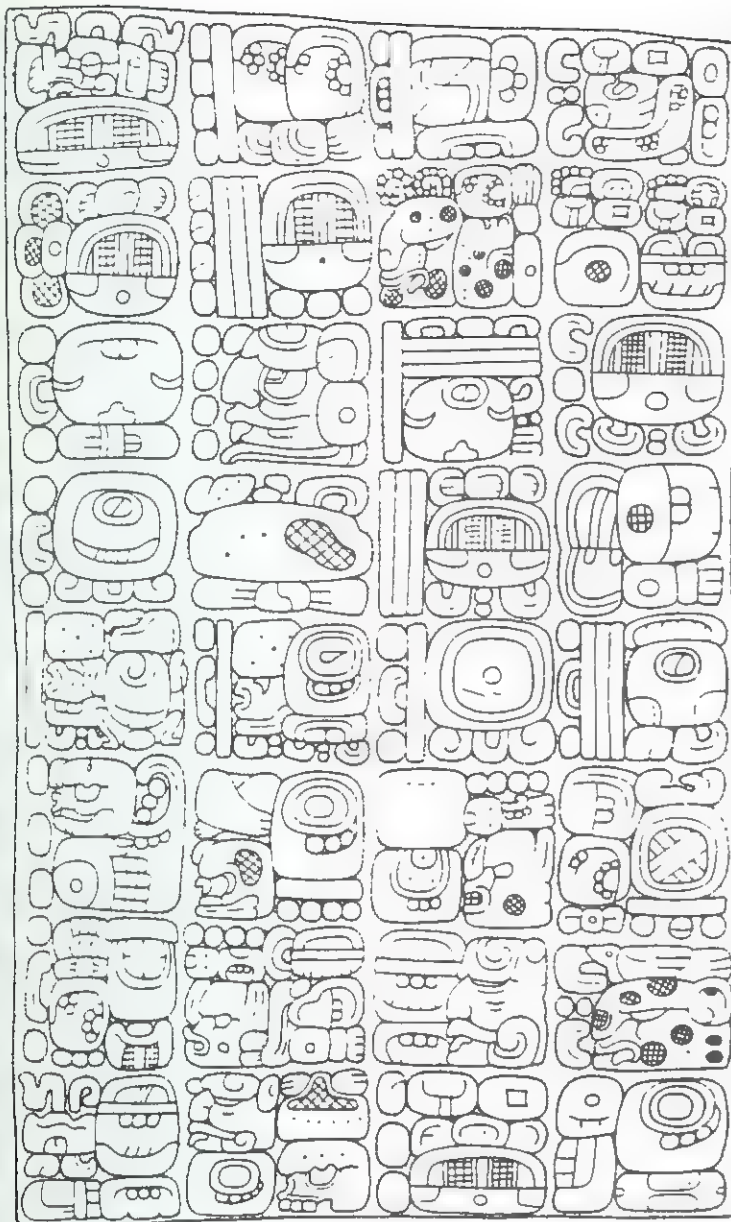
Yaxchilan Stela 12

Its change was 6 days, 10 tuns
count until 11 Ahau 8 Zec
he was seated as ahpo
"Sky god lord," Bat-Jaguar
Lord of Yaxchilan, Bacab

Proskouriakoff believed the Bat-Jaguar glyph in this text to name Bird-Jaguar. I agree, but I knew of no evidence explaining the bird-bat substitution until Ray Gaytan, a student of mine, found some very interesting information about the behavior of fruit bats in the Maya region. Peter Mathews had

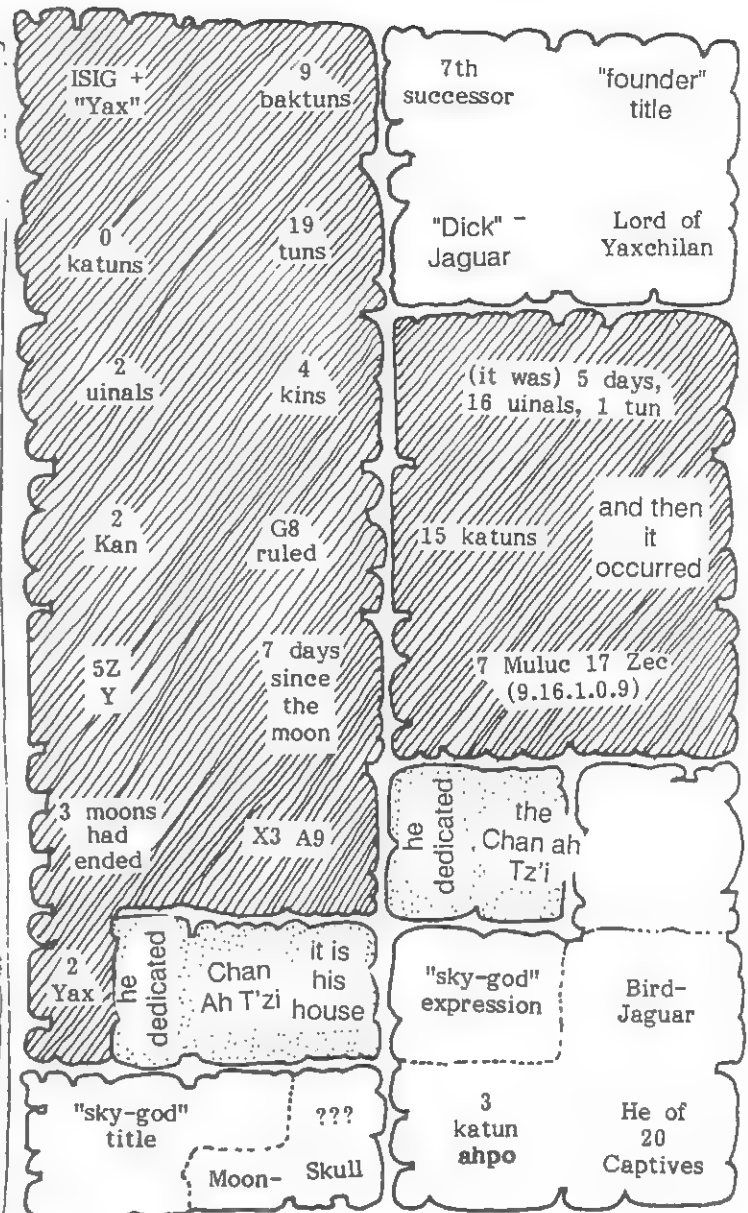
told me that based on iconography showing this bird hovering in front of flowers, he believes the bird to be a hummingbird; Ray found that one species of fruit bat (found in the Maya lowlands) takes nectar from plants at night by hovering like a hummingbird. This bat is called the "night hummingbird" in some Mayan languages and may be the basis of the bird-bat substitution. The bird is the "day hummingbird"; the bat is the "night hummingbird," its structural opposite.

Yaxchilan Lintel 21, the last text to be discussed, links the actions of Bird-Jaguar and an ances-



Yaxchilan Lintel 21

tor who underwent the rite 297 years earlier. The first clause opens with the date 9.0.19.2.4 2 Kan 2 Yax, written in a Long Count notation with the Lord of the Night and the age of the moon given. The verbal phrase is recorded at A7b-B7, followed by the subject, the Early Classic ruler Moon-Skull, who is named as the 7th successor of Yaxchilan here and on Lintel 49. A DN then records the time between this event and its reenactment by Bird-Jaguar nine days after his accession. This text is paraphrased as follows:



(On) 9.0.19.2.4 2 Kan

G8 ruled, Glyph Y

(it was) 7 days since the moon
three lunations had ended

3X, the lunation had 29 days

2 Yax he did the 4-bat event in his house

"sky god lord," Moon-Skull,

the 7th successor, title, "dangle-god lord"

Lord of Yaxchilan

(it was) 5 days, 16 uinals, 1 tun, 15 katuns
 count until 7 Muluc 17 Zec
 he did the 4-bat event "sky god lord"
 Bird-Jaguar, 3 Katun Lord
 He of 20 Captives

This text reinforces the importance of Bird-Jaguar's act by associating it with the same event in the life of a distant ancestor and by emphasizing the continuity of these events in time. Stela 12 sanctifies Bird-Jaguar's accession by linking it with the death of his father; it stands next to Stela 11 which twice records Bird-Jaguar's accession with Initial Series dates and in highly elaborated style. The Structure 10 inscription focuses on the last event (perhaps the dedication of the building), but that event is placed within the continuity of Bird-Jaguar's life by linking it with his death and accession. All these linkages serve to provide a framework for historical action and to reinforce Bird-Jaguar's legitimacy as ruler of Yaxchilan.

Contents and Character of the Writing System

Berlin's article on Emblem Glyphs (1958) and those of Proskouriakoff on Piedras Negras (1960) and Yaxchilan (1963-64) were pivotal to the study of Maya hieroglyphic writing because they demonstrated with indisputable argument that monumental inscriptions are primarily historical in content. As their methods of analysis have been applied to other inscriptions, it has become clear that the contents of the public inscriptions are remarkably limited and focus almost exclusively on dynastic events, such as birth, heir-designation, accession, death, war, capture, etc. There are still a large number of event glyphs not yet understood, but newly deciphered ones seem to be invariably dynastic, although they may include other kinds of data. For instance, we now know that a large number of war and sacrificial rites were enacted on a schedule linked to major stations of Venus and Jupiter, but the texts recording these events do not focus on astronomy as a science, but on the historical and ritual events that occurred in association with these astronomical periods. In addition, the monumental inscriptions are remarkably redundant; the same events are repeatedly recorded in slightly varied forms or emphasizing different qualities of the event.

The particular texts presented in the previous sections are typical of the kind of redundancy we have found. The accession of Bird-Jaguar is recorded on the side of Stela 11 (p. 37) and in the front lower register (p. 38). The side text uses an Initial Series date, the Lord of the Night, the age of the Moon, the 819-day-count station, the T684 "bundle" verb for accession, and *ahau* as the office. The front text uses an IS date, the Lord of the Night, age of the moon, and the T684 verb with personified *ti* and *ahpo* as the office, but it also extends Bird-Jaguar's name phrase to include his genealogy, information redundantly reinforced by placing portraits of his parents in the upper registers on the front and back of Stela 11. This monument stood in front of Structure 40, adjacent to Stela 12, which again records his accession, but this time linked by a DN to the death of his father Shield-Jaguar and recorded with the T644 *chumwan* "seating" verb and *ahpo* as the office.

The scene on the front of Stela 11 shows Bird-Jaguar and Shield-Jaguar holding cloth staffs shortly before Shield-Jaguar's death. Lintel 33 (p. 44) records the re-enactment of this cloth-staff rite exactly six haabs after the Stela 11 event, and after Shield-Jaguar's death, but before Bird-Jaguar's accession. Lintel 33 was located in Structure 13, immediately adjacent to Structure 10, housing Lintels 29, 30, and 31. These three lintels again record Bird-Jaguar's accession, linked by DN to his birth and two undeciphered events occurring on the oxlahuntun of Katun 16.

Bird-Jaguar's accession is again recorded on Lintel 1 in Structure 33, perhaps Bird-Jaguar's most important building. Here the event is shown as the display of the God K scepter and written in a *ti* construction featuring T670 *ahau-in-hand* as the verbal noun. Lintel 3 records the same event and verbal phrase again, but on a date four years after the accession on the occasion of a hotun ending. Centered between these two lintels, Lintel 2 records the rites celebrated on the occasion of the fifth tun anniversary of Bird-jaguar's accession. The scene shows Bird-Jaguar and his son Shield-Jaguar II displaying "tree" scepters.

The same "tree" scepter rite is shown on Lintel 5 on the date 9.16.1.2.0 12 Ahau 8 Yaxkin. The same date is featured on Lintel 42, from a building at the opposite end of the site, but the scene shows the God K scepter event instead of the "bird" scepter rite. On Lintel 5, Bird-Jaguar stands with a woman

holding a bundle, while on Lintel 42, he stands with Kan-Tah, the male who appears on Lintel 8 as his battle companion. We could interpret this change of verb, rite, and actors either as a record of unrelated events that happened to occur on the same day, or as different, but complementary records of the same event or ritual (as in the different records of Bird-Jaguar's accession rites). This latter assumption is supported by Lintels 6 and 43, which also record differing scenes of events occurring on the same day. As in the previous pair of scenes, the actors are different--Bird-Jaguar and Kan-Tah on Lintel 6 and Bird-Jaguar and Lady Balam on Lintel 43. However, in this pair of lintels Bird-Jaguar holds the same object and the verbal phrases are the same. The use of two sets of lintels allows the scribe to record different kinds of information about the same ritual action, especially when the ritual is complex or involves different phases or many important persons. By comparing these kinds of multiple records, we can begin to reconstruct ritual sequences and to understand the kinds of actions that were needed to sanctify the transfer and exercise of power.

The redundancy and limited contents of the Yaxchilan inscriptions also characterizes the inscriptions of other sites. At Palenque, single events are recorded as many as ten times in the texts of the Group of the Cross. The longest readable text surviving from the Classic period, the panels of the Temple of Inscriptions at Palenque, is remarkably repetitive and its contents restricted. The first two and one-third panels record a katun history, possibly the proto-type to the *Chilam Balam* histories, of Katuns 4 through 13. The middle third of the west panel is not yet understood, but it appears to record supernatural/cosmological events during the lifetime of the protagonist Pacal, and the last third of the text records the accession and death of Pacal's wife, his death, and the accession of his son. The Temple of Inscriptions at Tikal, according to Jones (1977), records the same kind of dynastic sequence and katun history as the Palenque text, but it begins in Baktun 7 (Olmec times). The hieroglyphic stair at Copan again records the same kind of information, but of captures and sacrificial rites in the history of Copan.

With rare exception, the stelae of Tikal record the same kind of events throughout the history of

the site. The most frequently recorded events are period ending rite, often linked by DN_s to some important event in the ruler's life, such as accession. Birth and death events are not found in these texts. The lintels of the Temple focus on sacrificial rites with special concentration on ancestral rites and the afterlife.

Almost all surviving texts from the Classic period are from the public domain and were erected as a part of the process that documented the history and legitimate rights of the dynasties of local sites. Very often, as at Yaxchilan and Tikal, the history as presented publically was limited to the significant events in the lives of the rulers and the placement of these events into the continuity of history at that site; in other words, delineating the linkage between the lives of contemporary rulers and their historical and supernatural forebears. At some sites, such as Palenque and Tikal, this public history was extended to include legendary and mythical time. Tikal declares that its lineage began in -1142 and Palenque rulers extended this continuity to include both past and future mythological time, and the actions of historical rulers were linked to identical action of supernatural or to cosmological/astronomical events. The function of these texts both at Tikal and Palenque was not to record religious myths, but to demonstrate supernatural sanction for the living rulers who commissioned them.

This overwhelming concentration on dynastic documentation and its supernatural and historical sanctions may result from the fact that only the public inscriptions have survived. We do not have the books. Less public documents, which must have existed to document detailed histories and genealogies (such as in the Mixtec codices), tribute records, trade and commerce, prescriptions for rituals, etc., have not survived. The great majority of texts surviving from the Classic period are of three types: (1) those placed in public space and in or on public buildings; (2) those on portable objects used in ritual and dress; and (3) those in tombs and caches, usually on pottery, but also in the form of wall murals. Obviously, this sample is biased, but at the same time, it gives us a record of those rituals, information, and beliefs that were successfully used to perpetuate social order and explain their place in the cosmos.

Deletion, Gapping, and Couplets

The texts given previously as examples of multiple clause structure were chosen because each of the constituent clauses are complete, containing a date, verb and subject. However, like all languages, it is not required that all parts of a clause be

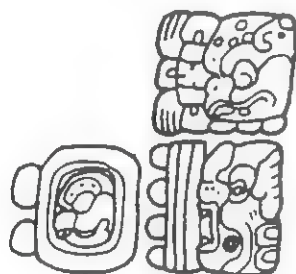
retained in every context; redundant information can be deleted and independent clauses linked into compound structures, as in the English sentence "He turned the key and started the car." The most frequent kind of deletion occurs in texts that repeat an event as the base of a new count of days. Redundant information can also be deleted when two

Information deleted from Clause 1.

Subject of birth: Chan-Bahlum

Date of birth:

2 Cimi 19 Zotz' (9.10.2.6.6)



Information deleted from Clause 2.

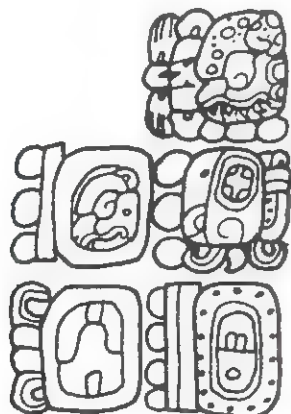
Subject of seating: Chan-Bahlum

Date of seating:

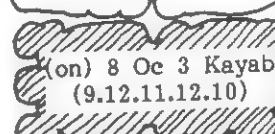
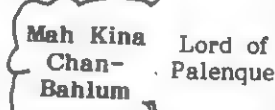
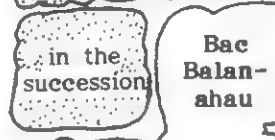
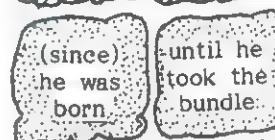
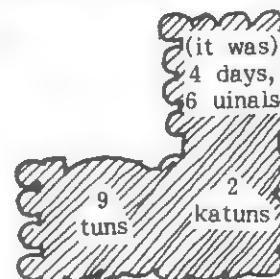
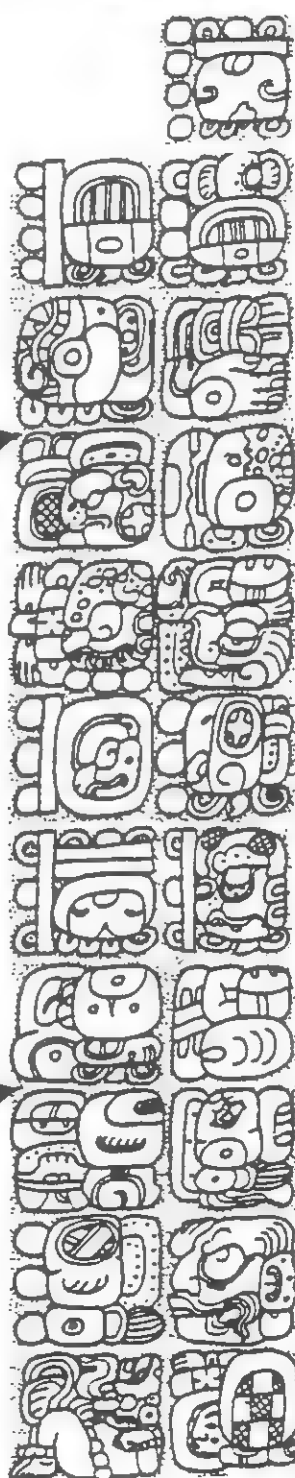
8 Oc 3 Kayab (9.12.11.12.10)

Date of "inverted sky":

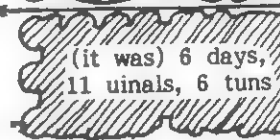
2 Cib 14 Mol (9.12.18.5.16)



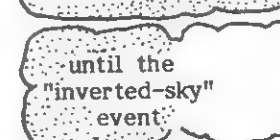
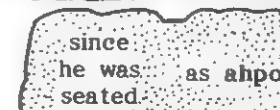
Palenque Tablet of the Foliated Cross



Clause 1

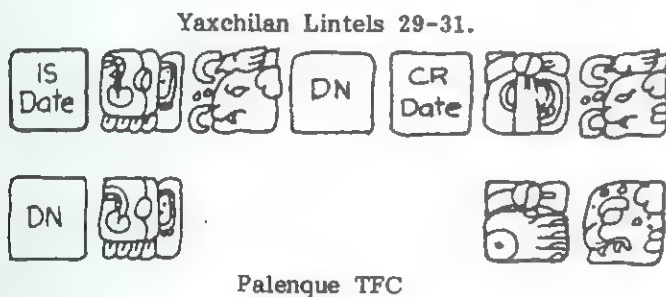


Clause 2



verbal phrases having the same subject are used within one clause structure; in this context, the subject need be recorded only once. The following passage illustrates these kinds of deletion.

The passage from Palenque records three events in two clauses. In the first clause, Chan-Bahlum's birth is linked to his accession by Distance Number. If both events were recorded in an independent clause with the full specification of data, it would record the date of the birth, the birth verb, and its subject, as in the passage from Lintel 30 previously discussed. Accession would follow the DN and include date, verb, and subject. In this passage, however, the date of birth and the name of who is born are deleted; the chart below compares the syntax of the Yaxchilan and Palenque clauses. The information in both passages is fully transferred without ambiguity, but the Palenque passage has deleted redundant information.



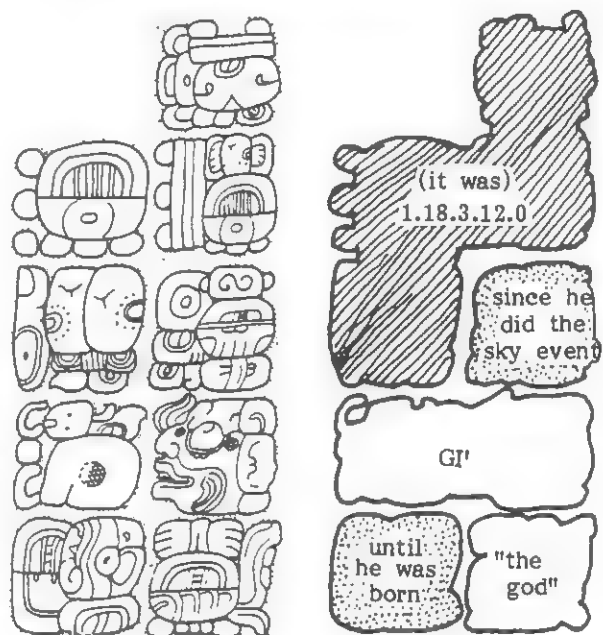
The second clause in the TFC text begins with a restatement of the accession event in the clause above, but since the subject of that accession has just been named, there is no need to record it again. Instead of recording "DN verb¹ subject¹ date¹ verb² subject² date²," the structure is "DN verb¹ verb² subject²." Note that in this second clause, the subjects of the two verbs are different; yet their identities are clear from the context. This clarity of information seemed to be the factor controlling these kinds of structures and the patterns of gapping. As long as the deleted information can be reconstructed from the context, any pattern of deletion and gapping within the syntactical possibilities of Maya languages is acceptable.

Couplets

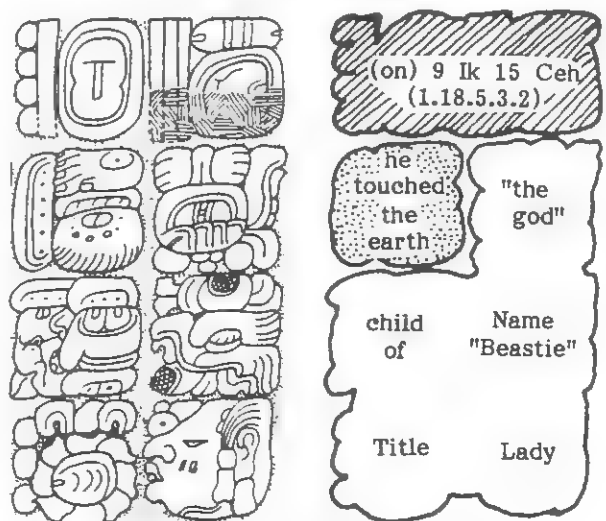
Floyd Lounsbury was the first to recognize couplet structures in the Classic inscriptions. A

couplet consists of paired clauses relating the same information in slightly altered and often contrasting forms. The prominence of couplet structures in Maya oral traditions and paired oppositions in Maya languages was documented, and Edmonson had identified the couplet as a major form in the *Popol Vuh*. Lounsbury's analysis of the calendric data and syntax in the Tablet of the Cross provided the first indisputable evidence of couplet structures in the inscriptions.

Part 1 of the couplet



Part 2 of the couplet



Palenque Tablet of the Cross

The second clause begins with the CR 9 Ik 15 Ceh, the later of the two dates implied in the previous clause. In other words, the two clauses relate events that occur on the same day. The first clause tells us how many days this date was after the previously recorded event; the second gives us the name of that day. The CR specification is followed by a verb and its subject. The verb is different, but the glyph naming the subject is the same as that in the first clause. However, in the second clause we get the additional information that he is the "child of Lady Beastie." Since the date and subject are the same, the verbs ought to record the same event. Lounsbury found that in modern Chol a metaphor *il panimil* "to see the world" is used as the term for "birth." Other senses, such as touch, can be used in this metaphor as well as the verb "to experience." The glyph in the second part of the couplet is composed of a possessive pronoun preceding a hand touching the phonetic combination *ca-b(a)* "earth." The glyph apparently reads "he touched the earth (or world)," the Classic version of the metaphor used by Chol speakers today. The verbs in both halves of the couplet are semantically equivalent; they both record a term for "birth."

The recognition of couplet structures and the use of deletion and gapping proved to be extremely useful in deciphering individual glyphs, in syntactical analysis, and in identifying structurally equivalent phrases. The usefulness of these techniques is particularly well illustrated in two Late Classic texts from Tikal. The text on Stela 22 is composed of two clauses arranged in a couplet with the second clause repeating information in the first. The text begins with a statement of the date 13 Ahau 18 Cumku, specifying that the CR corresponds to the 17th katun. The verb is "he ended the tun" with the subject named as Ruler C. His name phrase includes a lengthy series of titles, including his designation as "the 29th successor" and as the "child of Ruler B." The first clause concludes with the name and title phrases of Ruler B.

The second clause opens with a DN of 2.1.16 and an earlier CR 11 Kan 12 Kayab (9.16.17.16.4). The event that occurred on this date is recorded as "was seated as *batab*," but the subject is not named. This verb is marked by the AEI and followed by the "scattering" verb with an infixed PEI and a deleted subject. The temporal relationship between

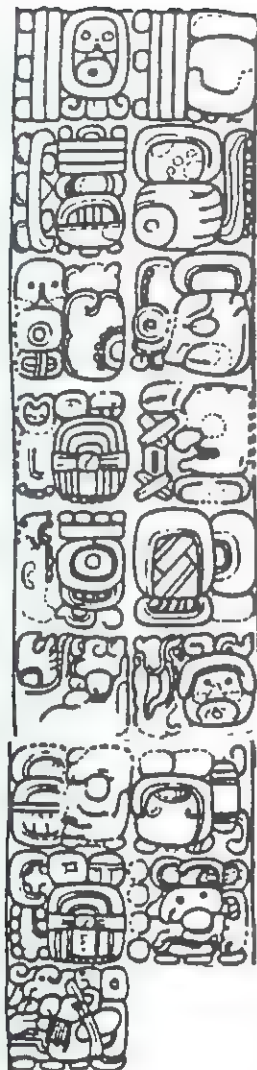
the two verbs is, therefore, specified with the "seating" marked as the earlier of the two events; it must correspond to the earlier of the two dates. The "scattering" verb is a pictograph of the action shown in the scene; the monument was carved and erected to show the ruler engaged in this rite. Since only two dates are recorded and since we know that the earlier of these dates is the day of the ruler's accession, the "scattering" rite has to have occurred on the second date. It is the ritual celebrating the end of Katun 17. The first clause names the date of the monument and tells us it was a period ending and that the person who ended the katun was Ruler C. The second clause reiterates the first by telling us that the PE occurred two years after Ruler C's accession, and that he ended the katun with a "scattering" rite, which we now know to be an act of "blood-letting." The pictorial information given as a parallel set of data shows Ruler C at the instant he scatters the blood. The text is paraphrased as follows:

(On) 13 Ahau 18 Cumku the 17th katun
He ended the tun Ruler C
Lord of Tikal, the 29th successor
The child of Ruler B
Naab-Uinic Mah K'ina
Lord of Tikal, 4 Katun Batab

(It was) 16 and 20 days, 2 tuns
Since he was seated as *batab*
until he scattered his blood.

The second Tikal text is from Lintel 3 of Temple I, a text that looked impossibly complex until I realized that most of the glyphs refer to a single event, recorded in three parallel clauses. The entire text consists of four clauses, the first of which records a base date, 9.13.3.0.0, and a war event in which Jaguar-Paw of Site Q apparently was captured. The remainder of the text, C1-F12, records a single event--the celebration of the 13th katun anniversary of the last date on Stela 31 forty days after the war event.

The event phrase in the first clause recording this anniversary ritual includes two verbal expressions--T174:565 verb + a prepositional phrase and "fish-in-hand" blood-letting. The subject of both verbs is recorded as Ruler A in a three glyph



Part 1 of Couplet



phrase that includes his personal name, a "sky-God K" glyph, and the Tikal EG.

In previous analyses of this text, I had not realized that a second clause begins at C6 with a verb. Previously, I had taken this glyph to be the T74:528.515 title appearing at E10, but the suffix is clearly T116 and the superfix is T79, a glyph associated with anniversary events at Palenque, Tikal, and Copan. I now believe the suffix to be part of the T130.116 *-wan*, known to mark positional verbs in the inscriptions. The damaged glyph below T79 seems to be T565 *ta*, which in combination with T79 functions to record anniversary rituals at Copan. I suspect the verb is a direct substitution for the T174.565 verb at C2.

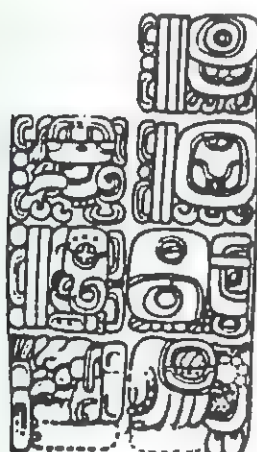
The glyph following the verb consists of T606, a half-darkened sign with an infixed *k'in*, and the main sign of the Tikal EG. A similar sign is associated with an anniversary verb on Lintel 3 of Temple IV at Tikal, but even more importantly an almost identical glyph is associated with a "fish-in-hand" verb on Yaxchilan Lintel 25. However, the Yaxchilan glyph has "water-lily" instead of the *k'in* variant, and the main sign of the Yaxchilan EG instead of that of Tikal. This glyph apparently specifies some important condition of the blood-letting rite.

Scattering: the glyph

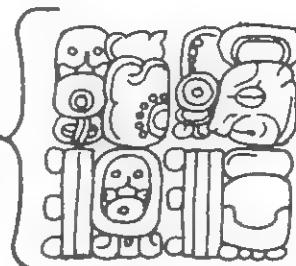
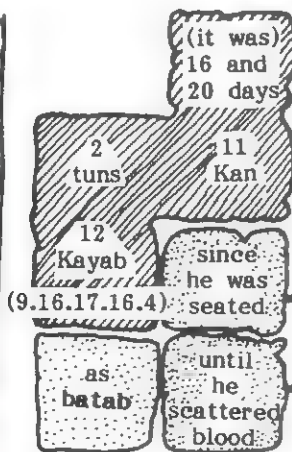


Deleted information:
subject: Ruler C

Scattering: the icon

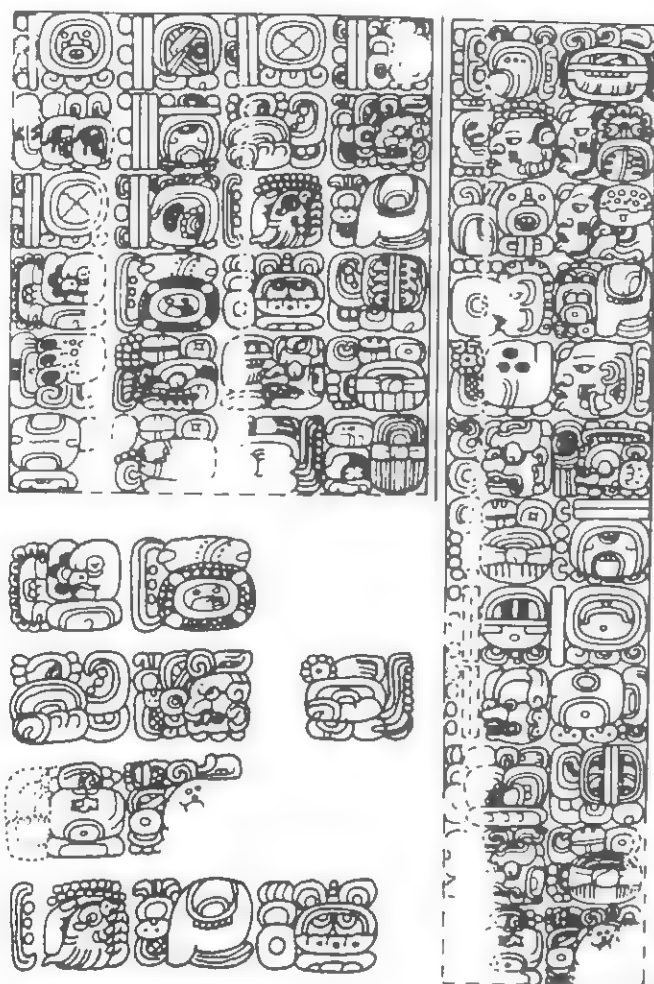


Part 2 of Couplet



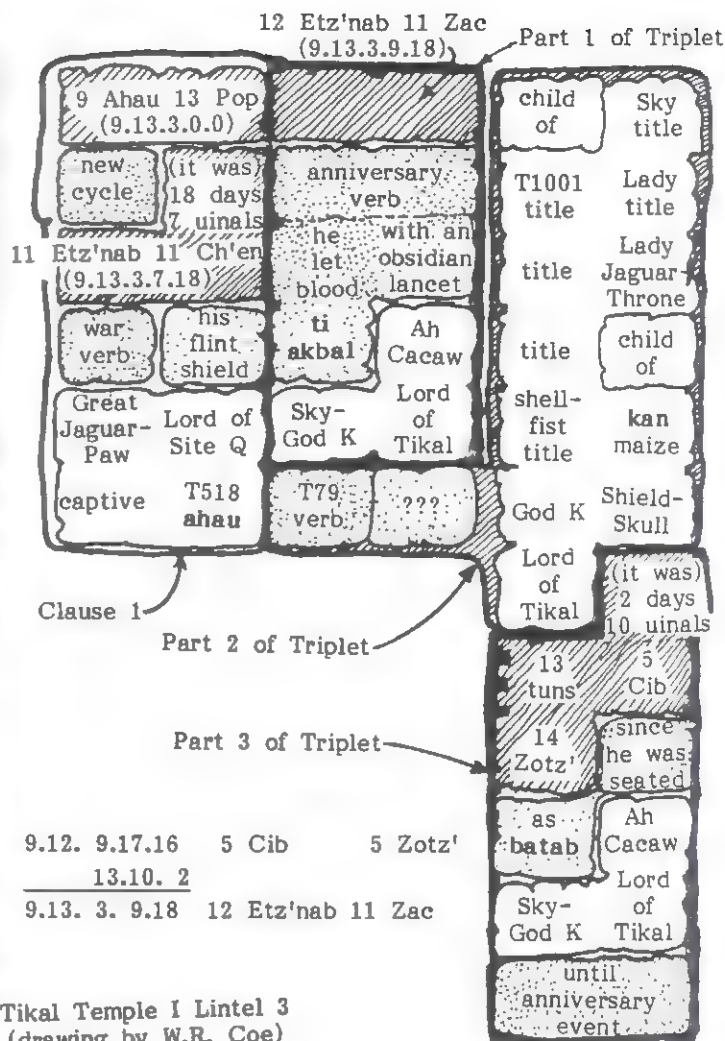
Deleted information:

Subject: Ruler C
Date: 13 Ahau 18 Cumku



The agent of this second clause is named with the T606 glyph at E1, a possessed noun best paraphrased as "the child of." The agent of the anniversary event is "the child of Lady Jaguar-Throne and of Shield-Skull, Lord of Tikal." Chris Jones has already identified this child as Ruler A.

The third clause once again reiterates the anniversary event, this time in association with Ruler A's accession. A DN leading from the accession to the anniversary date begins the clause; it is followed by the date of the accession, "was seated as *batab*¹," and the subject of the accession event, Ruler A. The anniversary event is recorded in the last two glyphs of the text; the subject, Ruler A, is deleted. The featured event of this clause is not the accession, but rather it is the anniversary ritual which is placed in temporal association with the accession. A paraphrase of this triplet structure is as follows:



(On) 12 Etz'nab 11 Zac

he took part in the T174.565 event

he let blood with an obsidian lancet ?in darkness?

Ah Cacaw, "Sky-God K"

Lord of Tikal

he took part in the T79.565 event

the child of Lady Jaguar-Throne

the child of Shield-Skull, Lord of Tikal

(it was) 2 days, 10 uinals, 13 tuns (on) 5 Kan 14 Zotz'

since he was seated as *batab*

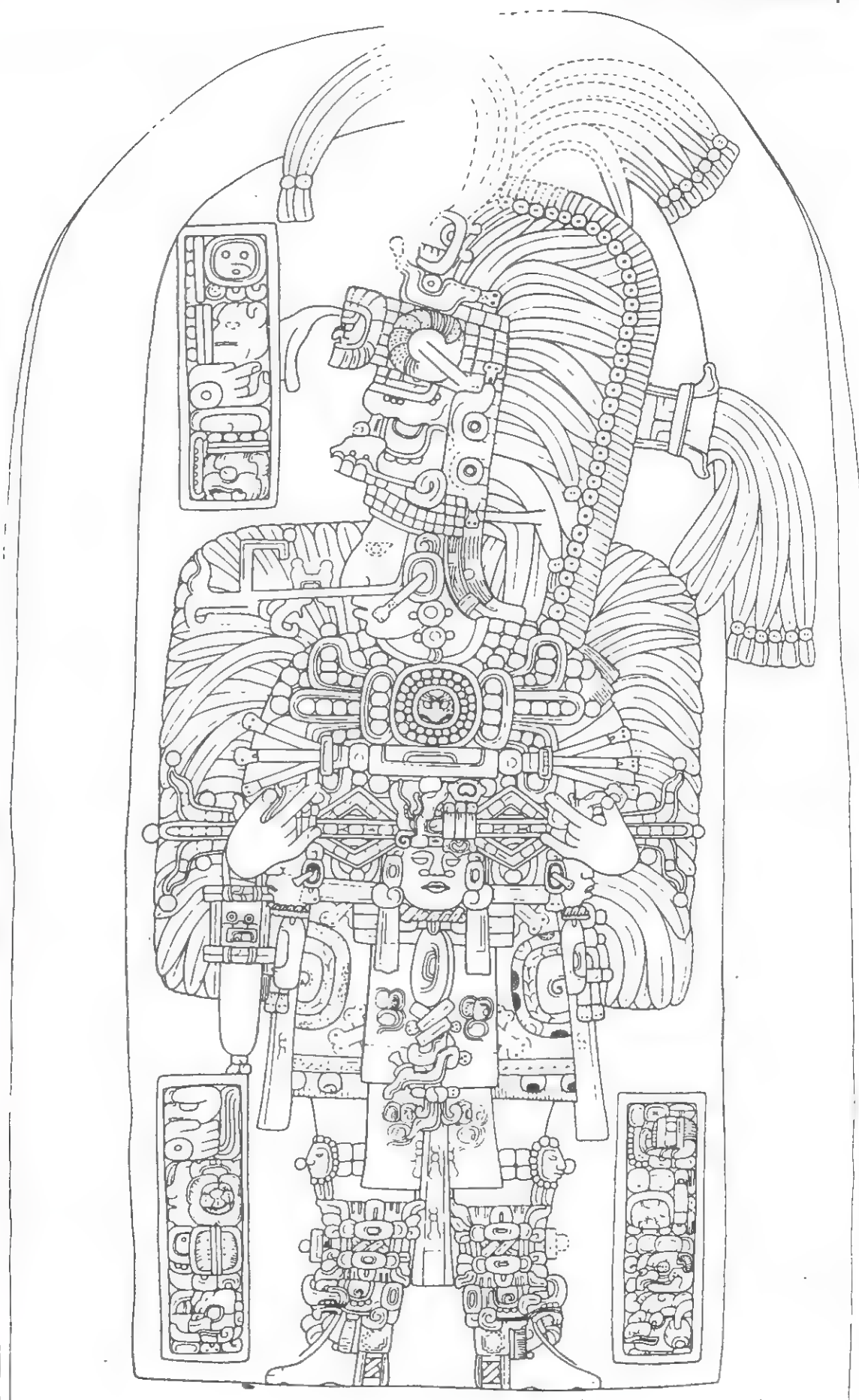
Ah Cacaw, "Sky-God K," Lord of Tikal

until he took part in the T174.565 event

¹ David Stuart has identified this glyph as a substitution for the T10301 *batab* title.

A1
A2
A3
A4

B1
B2
B3
B4

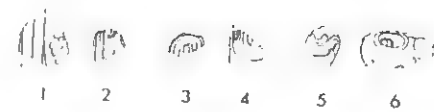
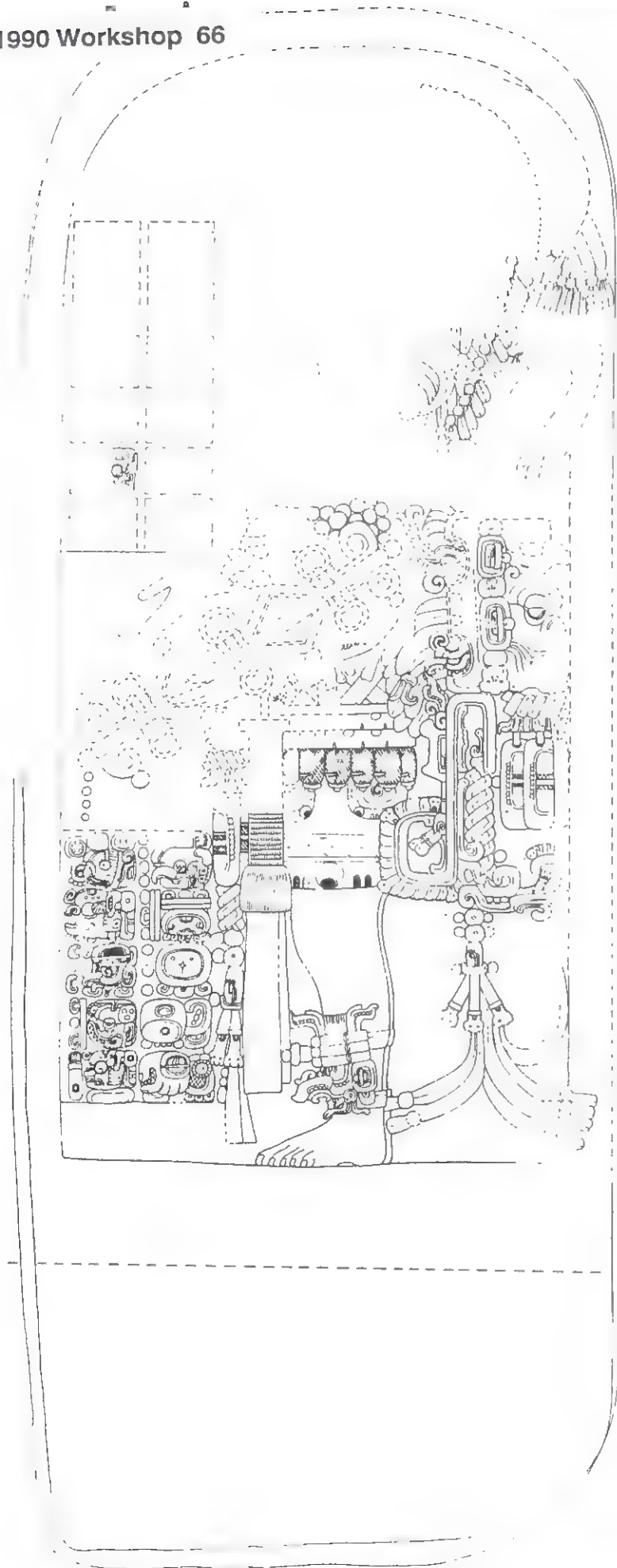


TIKAL ST. 16, front

FIGURE 31

1
2
3
4
5
6

7
8
9
10
11



b

Tikal St. 21: a. front; b. fragments.
See photo, Fig. 97b.



1 2 3 4

C

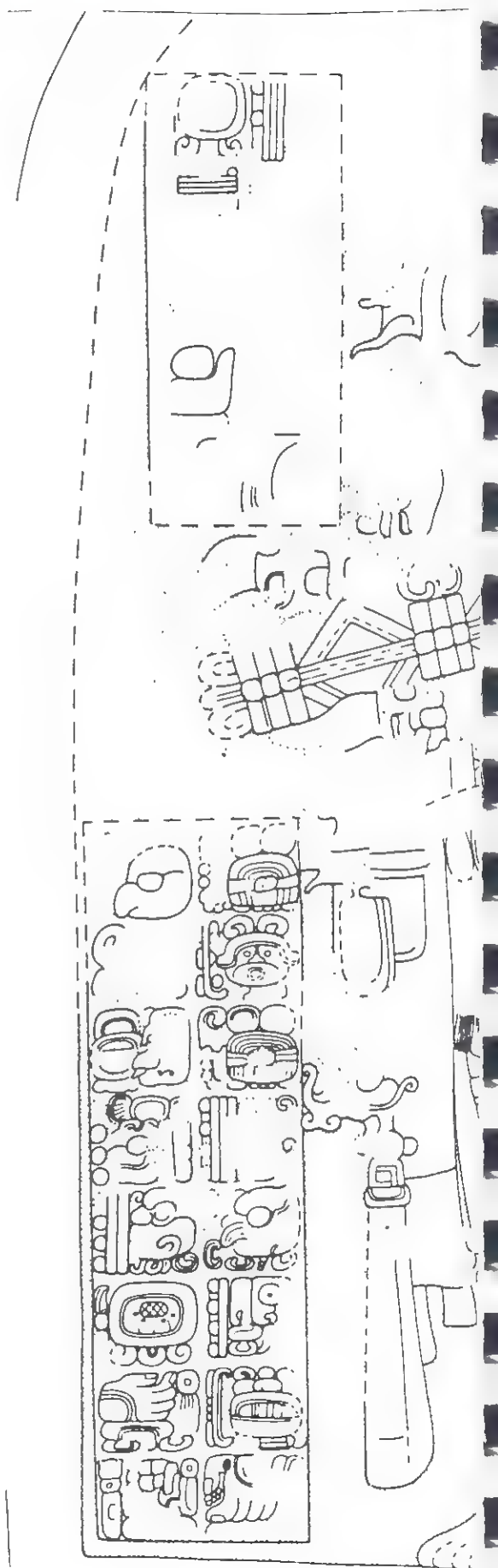
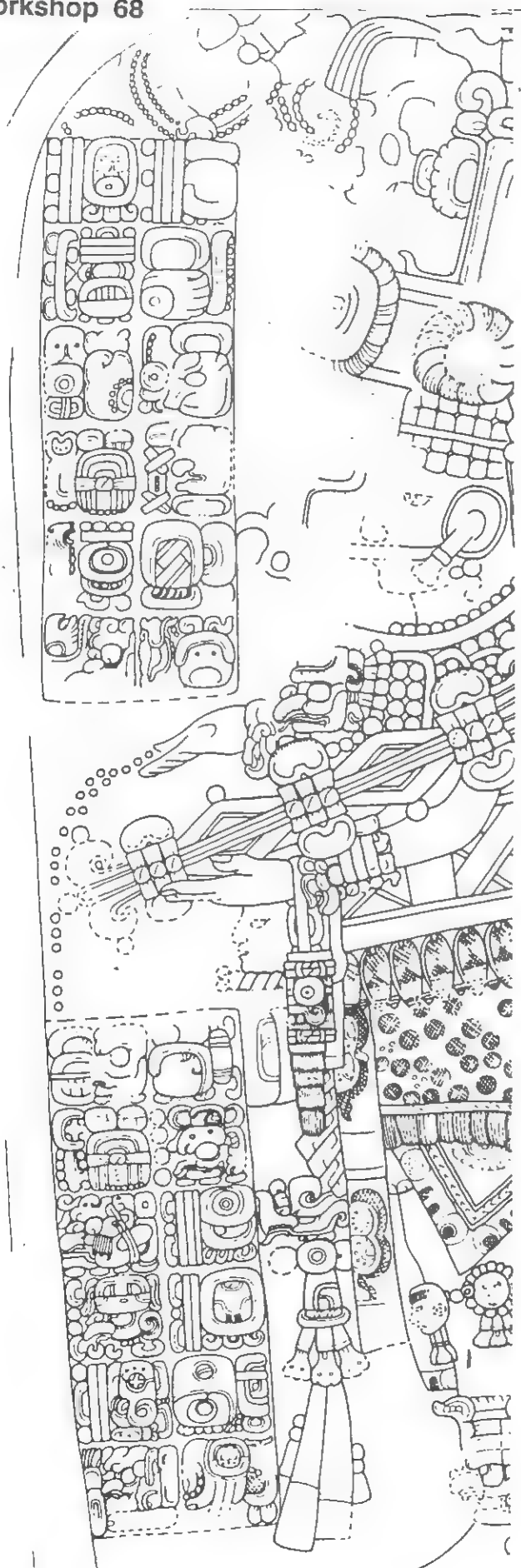
A'



zA

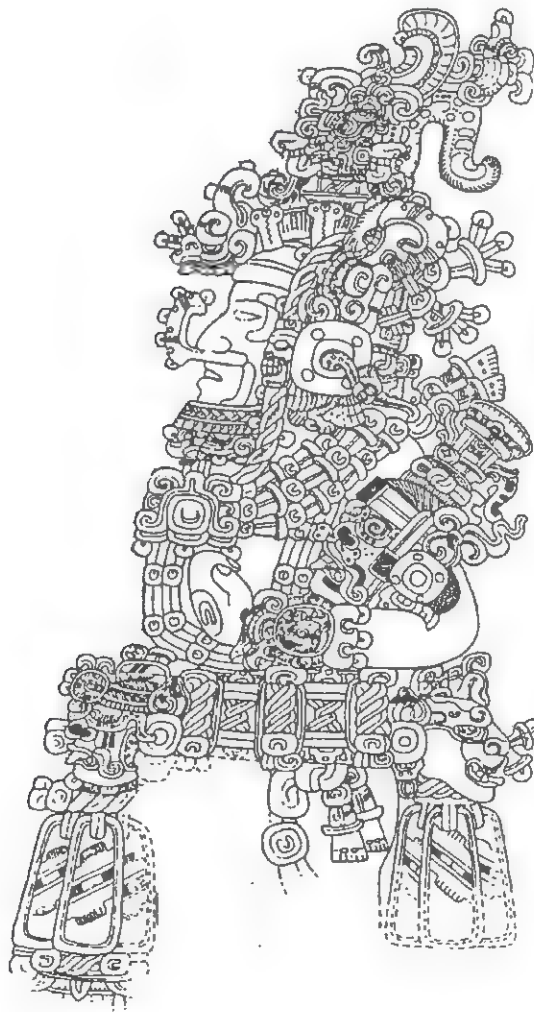
yA

a

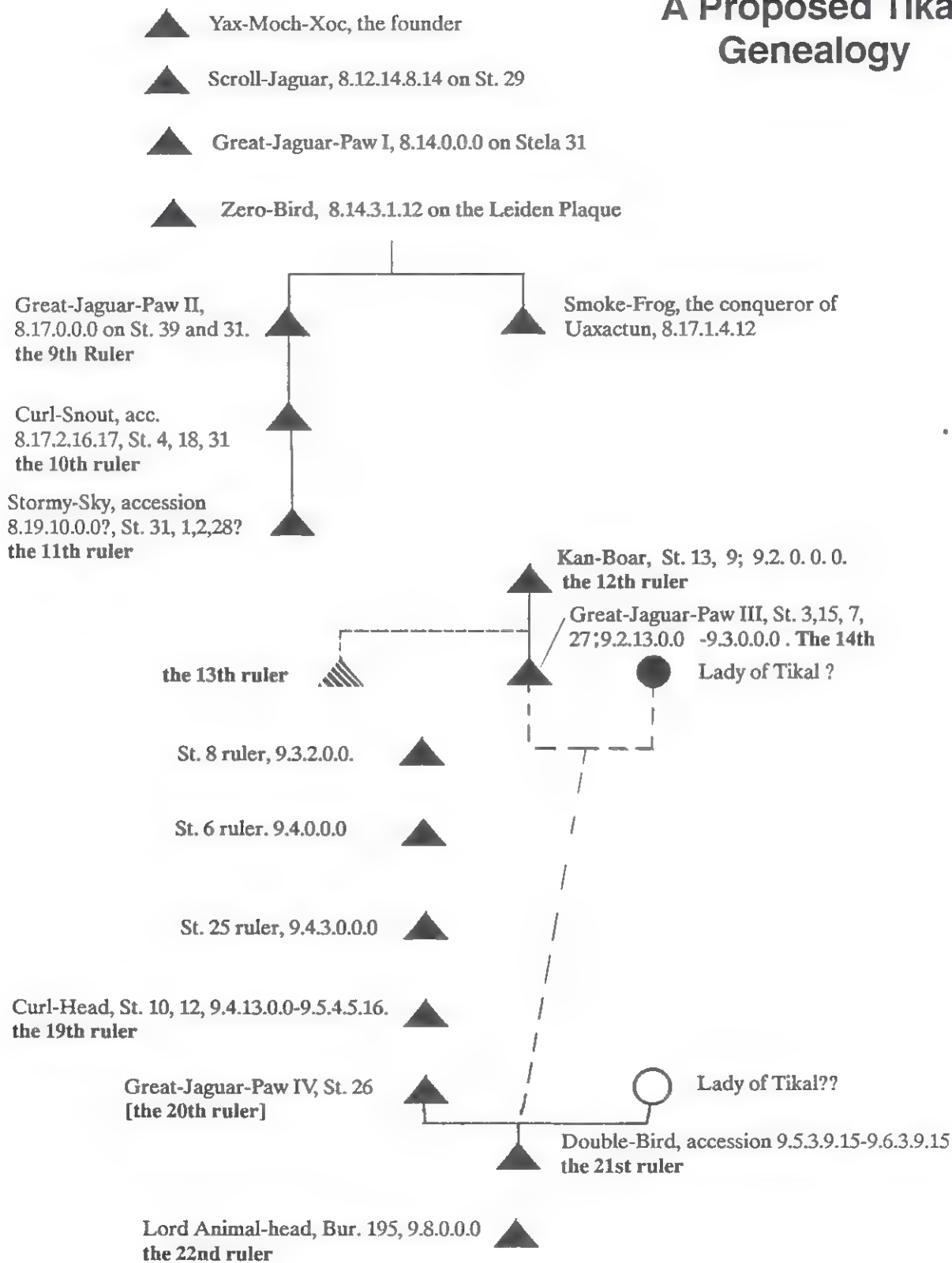


Part 2

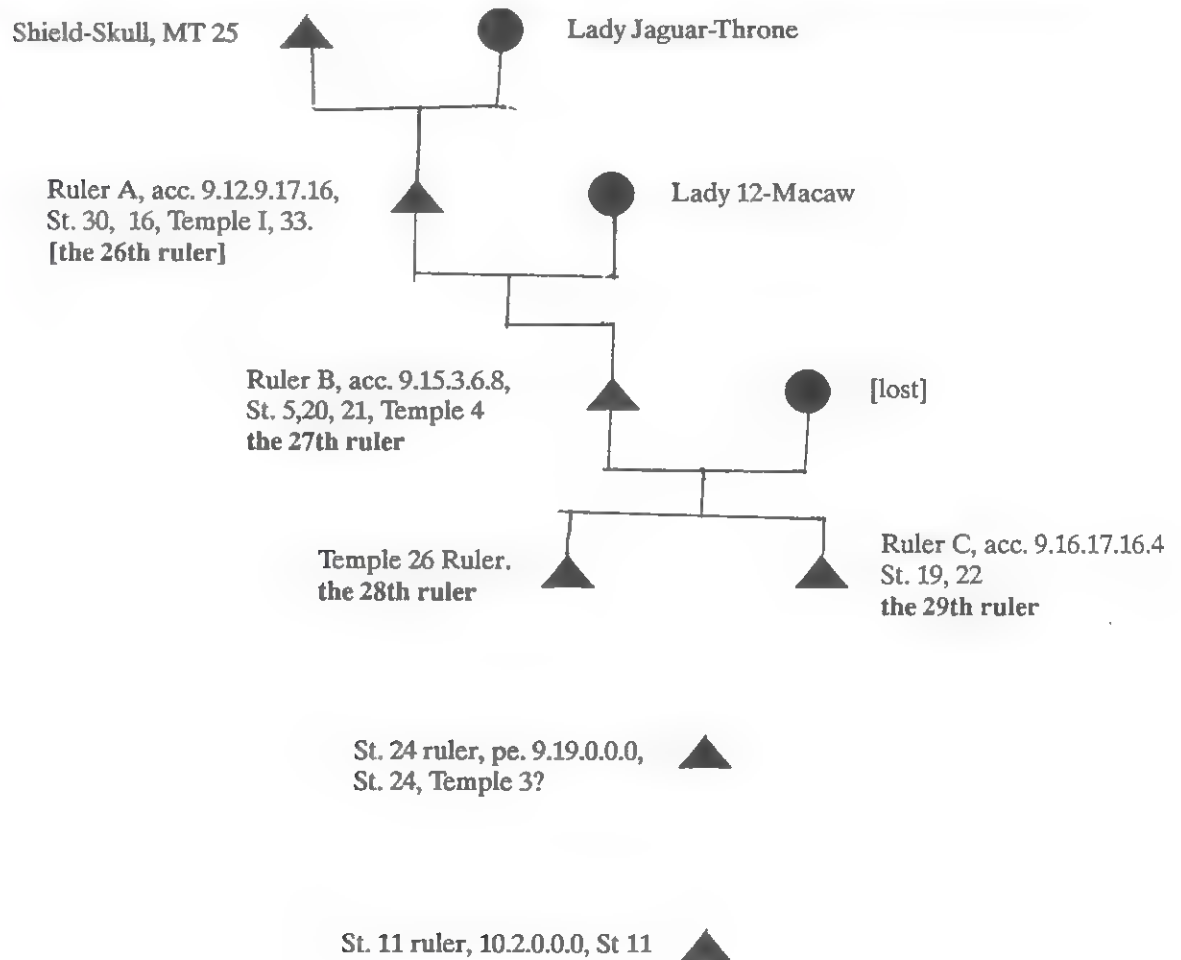
Tikal: The Early Dynastic History



A Proposed Tikal Genealogy

















Hiatus

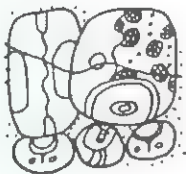


CONCLUSION

TABLE 6
RULERS OF TIKAL

	?	JAGUAR PAW		Ruling at 8.14.0.0.0? (A.D. 317); portrayed on St. 29?; named on St. 31; entombed in Bu. 22?
	?	CURL NOSE		Ruled 8.17.2.16.17 to ca. 8.19.10.0.0 (A.D. 379-426); portrayed on St. 4, 18; entombed in Bu. 10?
	BIRD CLAW?	STORMY SKY		Ruled ca. 8.19.10.0.0 to 9.1.1.10.10 (A.D. 426-457); portrayed on St. 31, 1?, 2?, 28?; entombed in Bu. 48?
	?	KAN BOAR		Ruled ca. 9.1.1.10.10 to ca. 9.2.13.0.0 (A.D. 457-488); portrayed on St. 9, 13
	WOMAN OF TIKAL?	JAGUAR PAW SKULL		Ruled ca. 9.2.13.0.0 to ca. 9.5.3.9.15? (A.D. 488-537); portrayed on St. 3, 7, 15, 27, 10?, 12?, 25?, 26?
		DOUBLE BIRD		Ruled 9.5.3.9.15 to 9.6.13.17.0 (A.D. 537-567) or later; portrayed on St. 17; 21st ruler
JAGUAR SEAT	?	ANIMAL SKULL		Named on MT. 216, 217; entombed in Bu. 195?; 22nd ruler
		SHIELD SKULL		Ruled to ca. 9.12.9.17.16 (A.D. 682); named on MT. 25, 44, Li. 3 of Temple I; entombed in Bu. 23?
TWELVE MACAW		RULER A		Ruled 9.12.9.17.16 (A.D. 682) to ?; portrayed on St. 30, 16, Li. 2, 3 of Temple I; entombed in Bu. 116
	?	RULER B		Ruled 9.15.3.6.8 (A.D. 734) to ?; portrayed on St. 21, 5, 20, Li. 2, 3 of Temple IV; entombed in Bu. 196?; 27th ruler
		TEMPLE VI RULER		28th ruler?
		RULER C		Ruled 9.16.17.16.4 to 9.18.0.0.0 (A.D. 768-790) or later; portrayed on St. 22, 19; entombed in Bu. 8?; 29th ruler
	?	DARK SUN		Named on St. 24 (possibly Ruler B)
		STELA 24 RULER		Ruling at 9.19.0.0.0 (A.D. 810); portrayed on St. 24?; named on Li. 2 of Temple III? (possibly Ruler C or brother)
		STELA 11 RULER		Ruling at 10.2.0.0.0 (A.D. 869); portrayed on St. 11; entombed in Bu. 77?

(Glyphs by Carl P. Beetz)



a

b

a



b



c



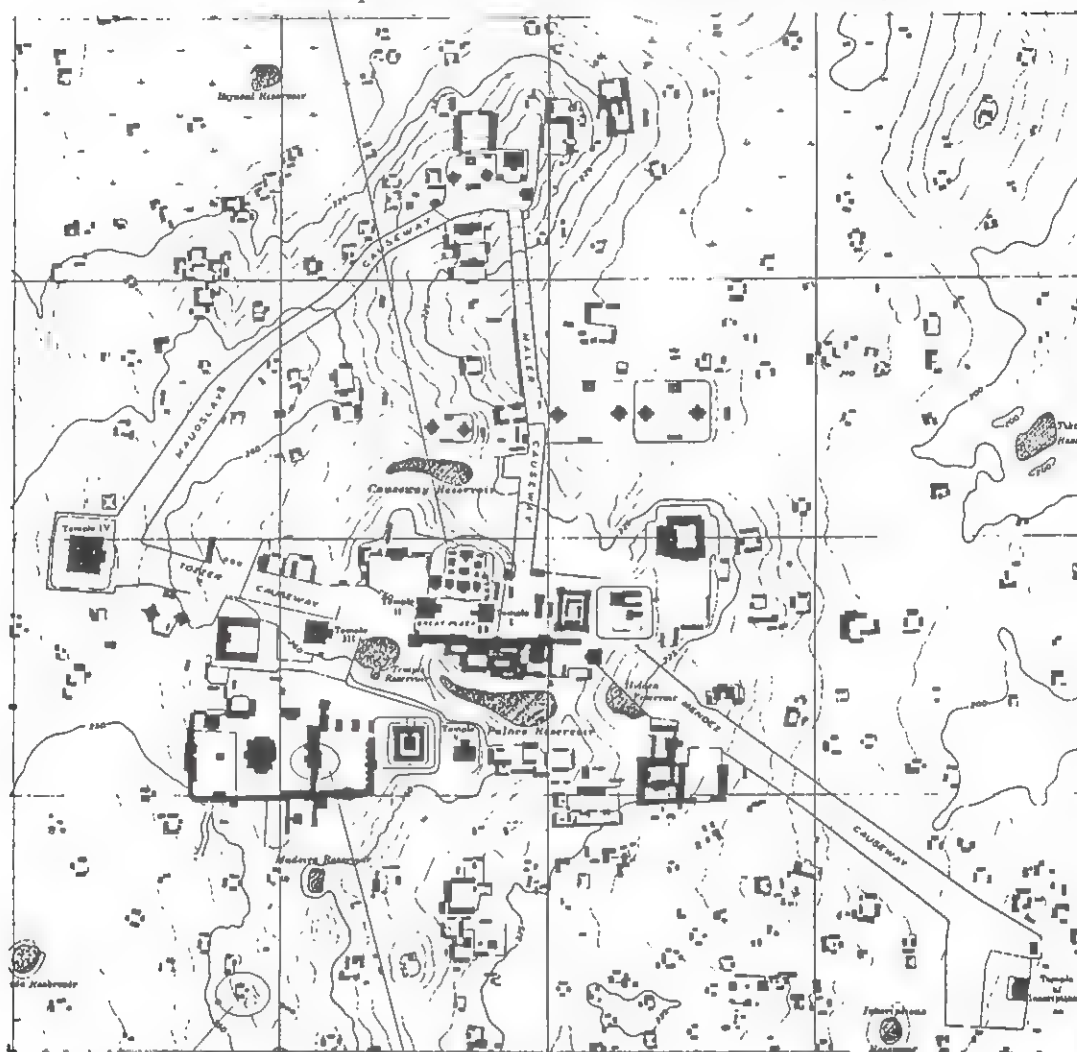
d



e



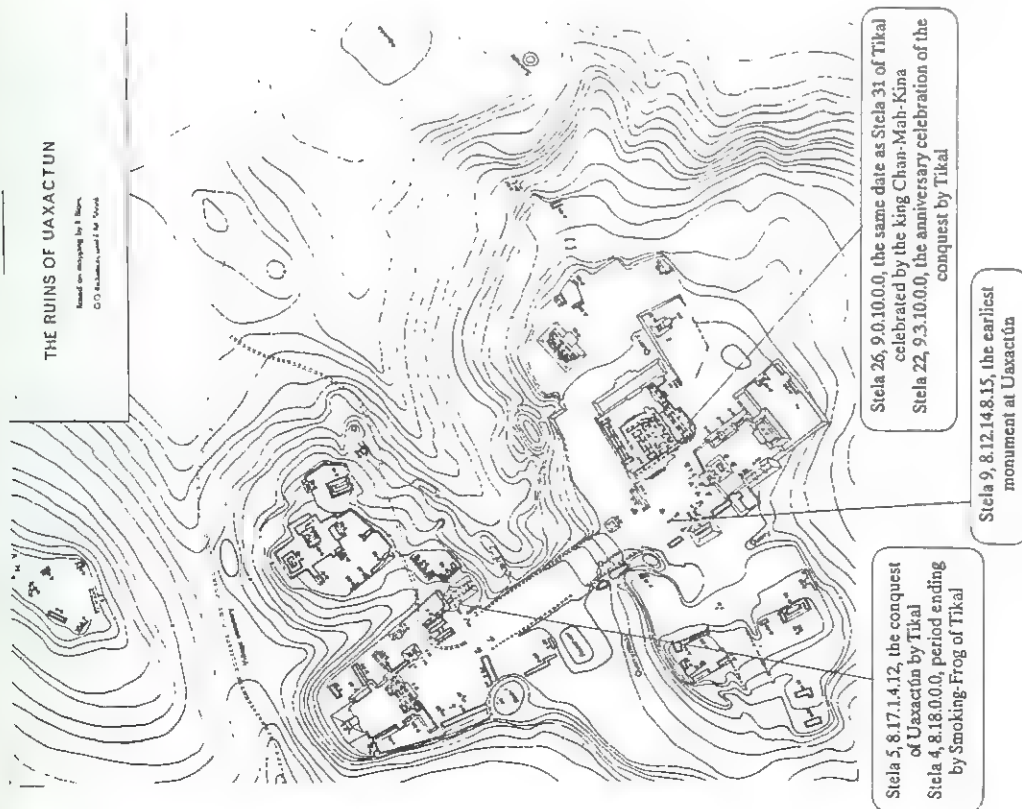
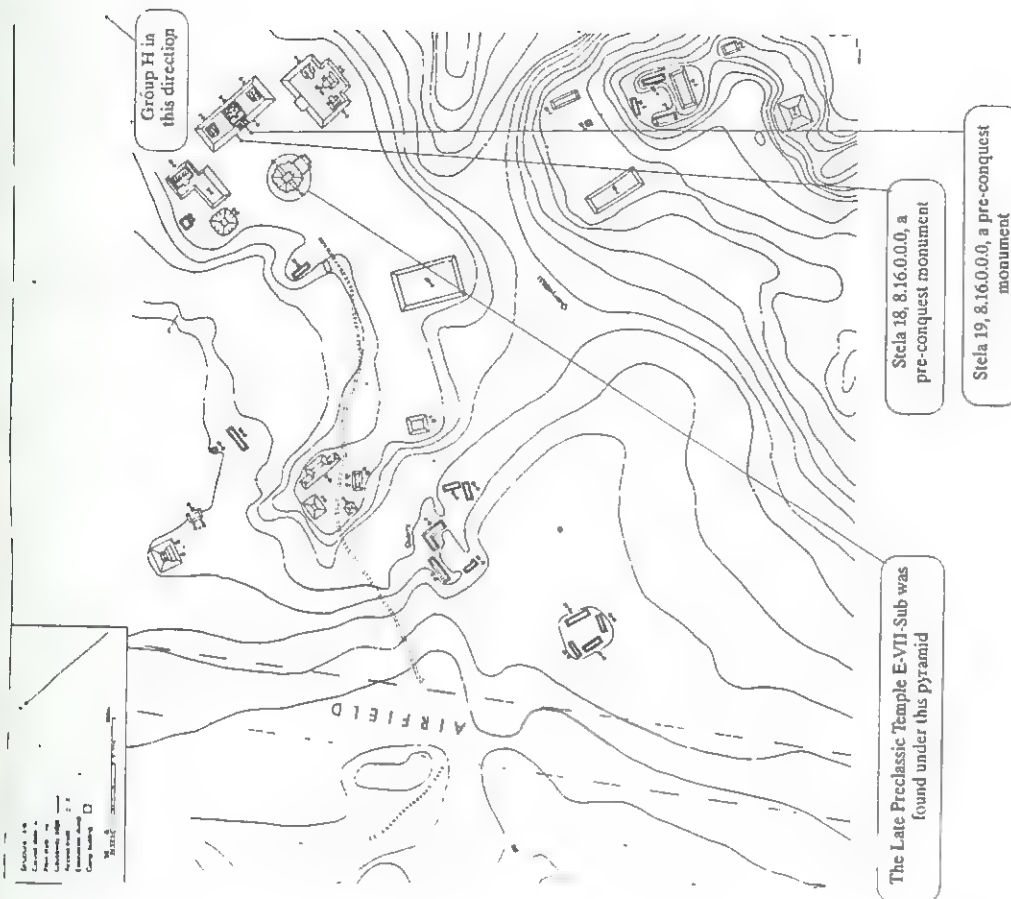
North Acropolis with the burials of Curl-Snout and Stormy-Sky



Group 6C-XVI

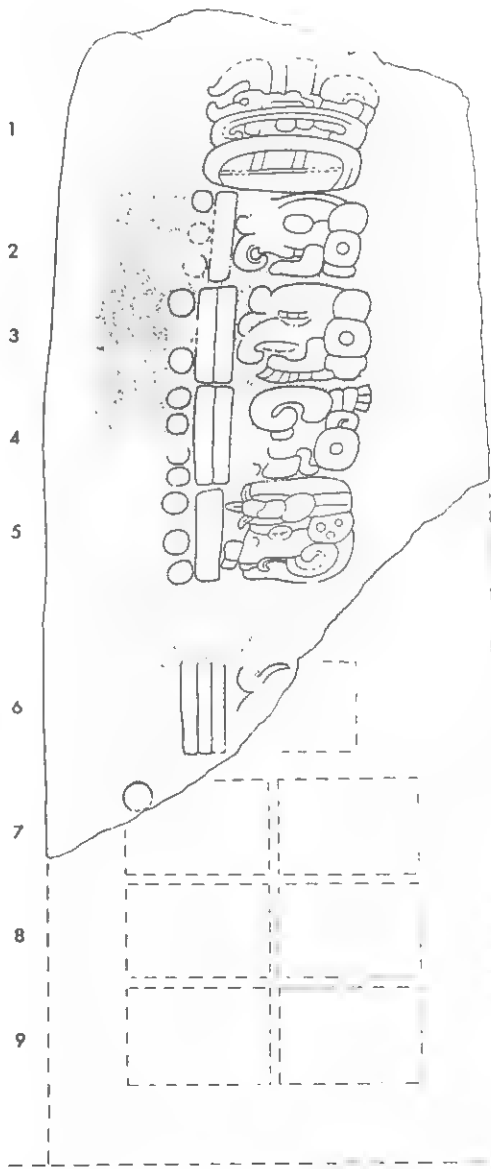
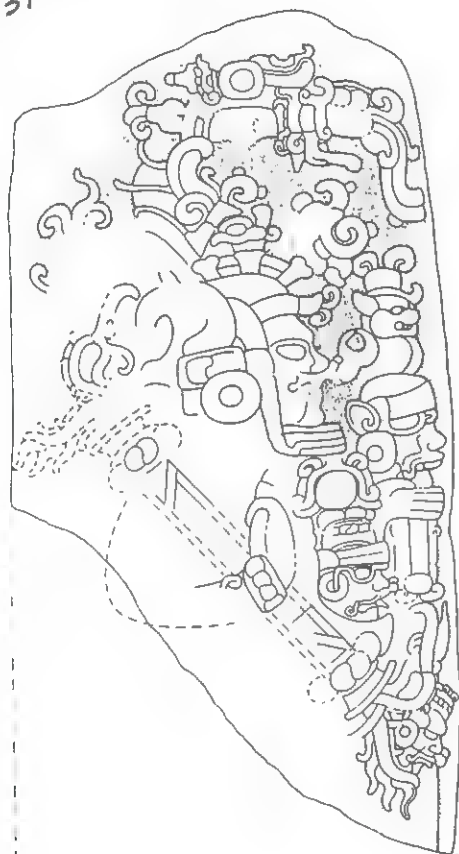
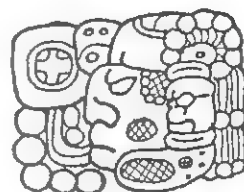
Location of Stela 39

Map of the Central Area of Tikal



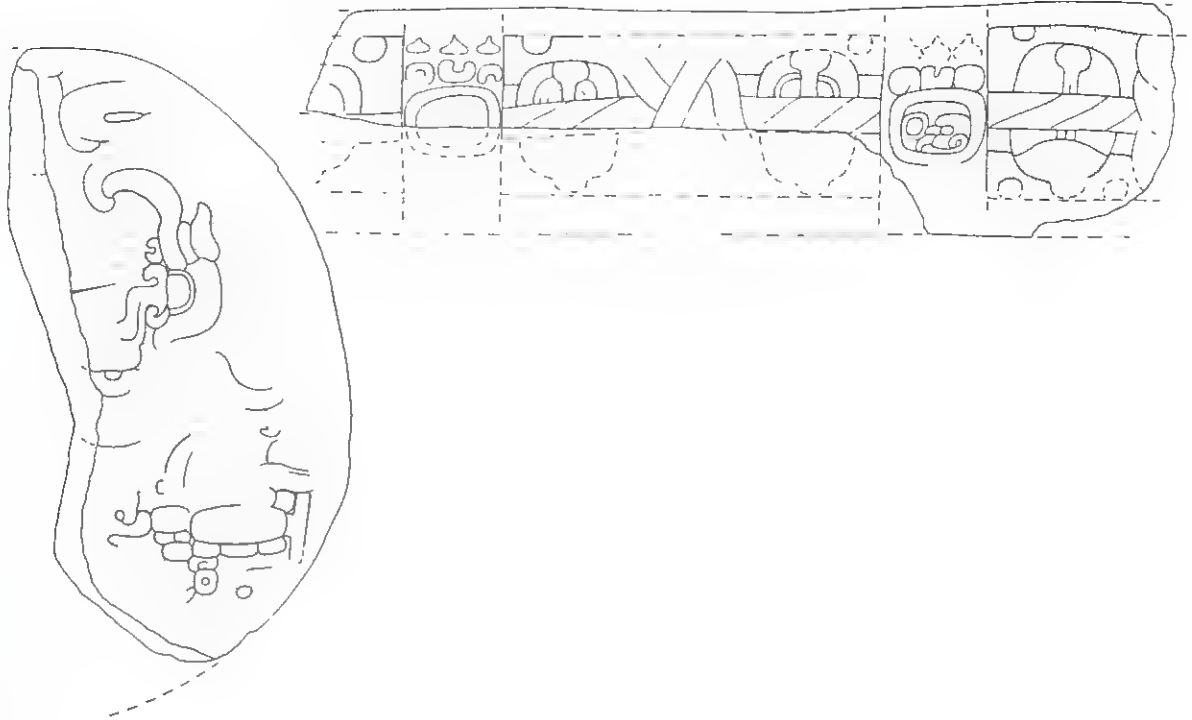


St. 31



St. 29

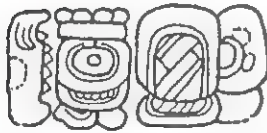
8.12.14 . 8.15 13 Men 32p



the 27th successor of



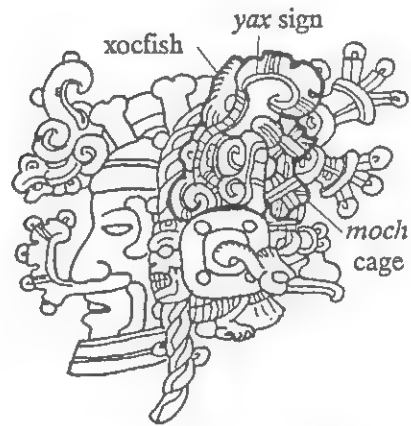
Yax-Moch-Xoc



the 29th successor of



Yax-Moch-Xoc



Stormy-Sky on Stela 31



the ninth successor of



Yax-Moch-Xoc

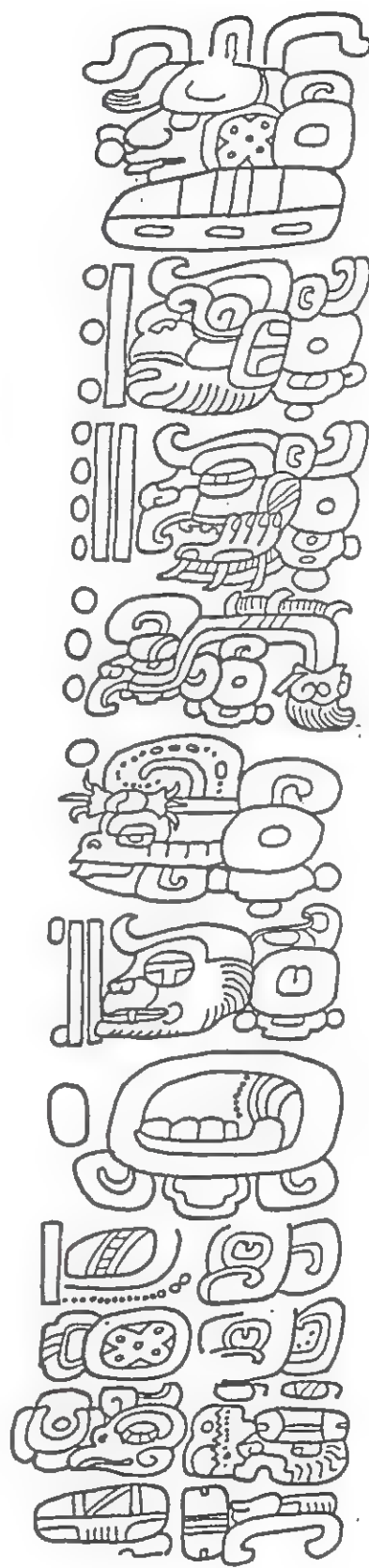
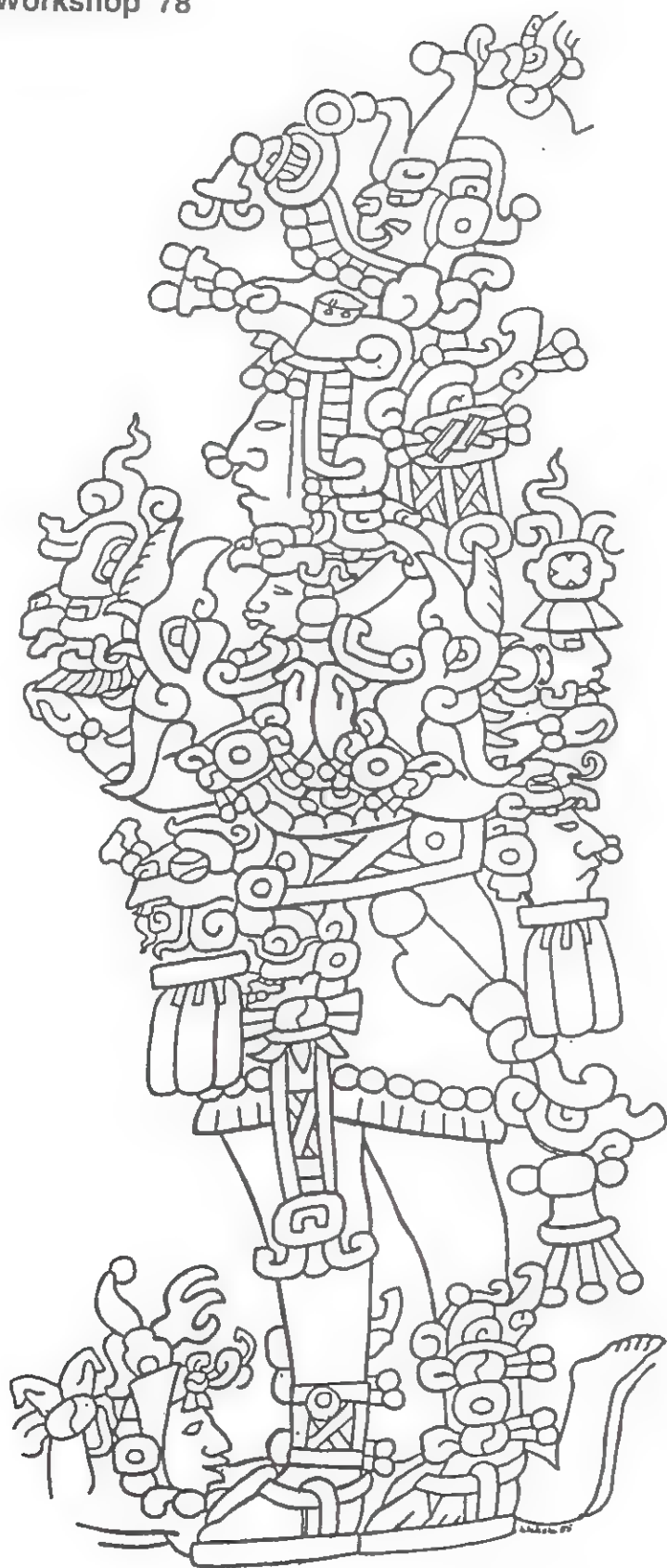


Great-Jaguar-Paw

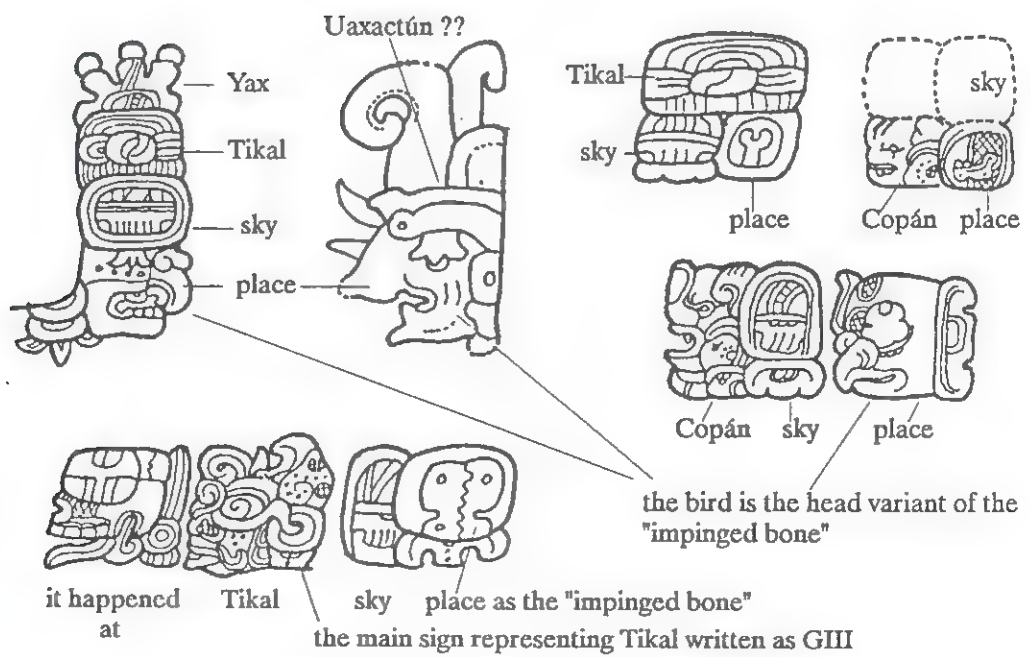


Moch-Xoc

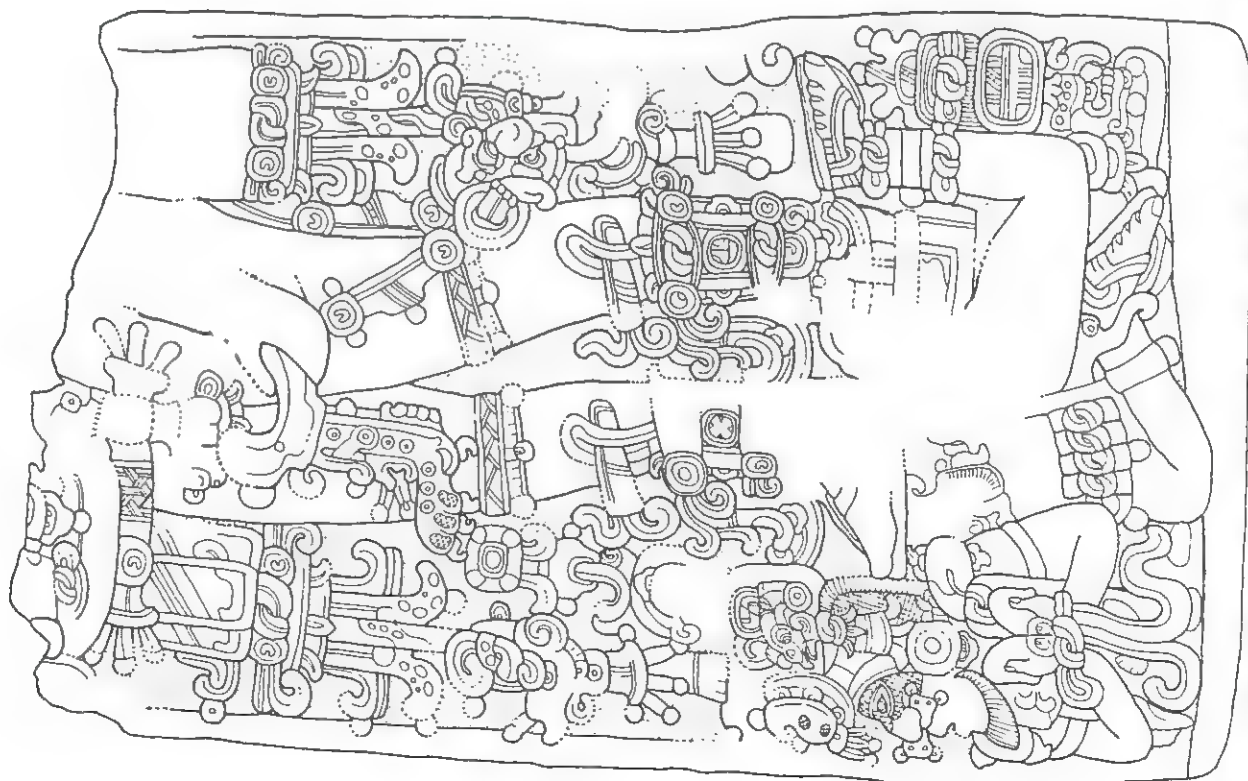
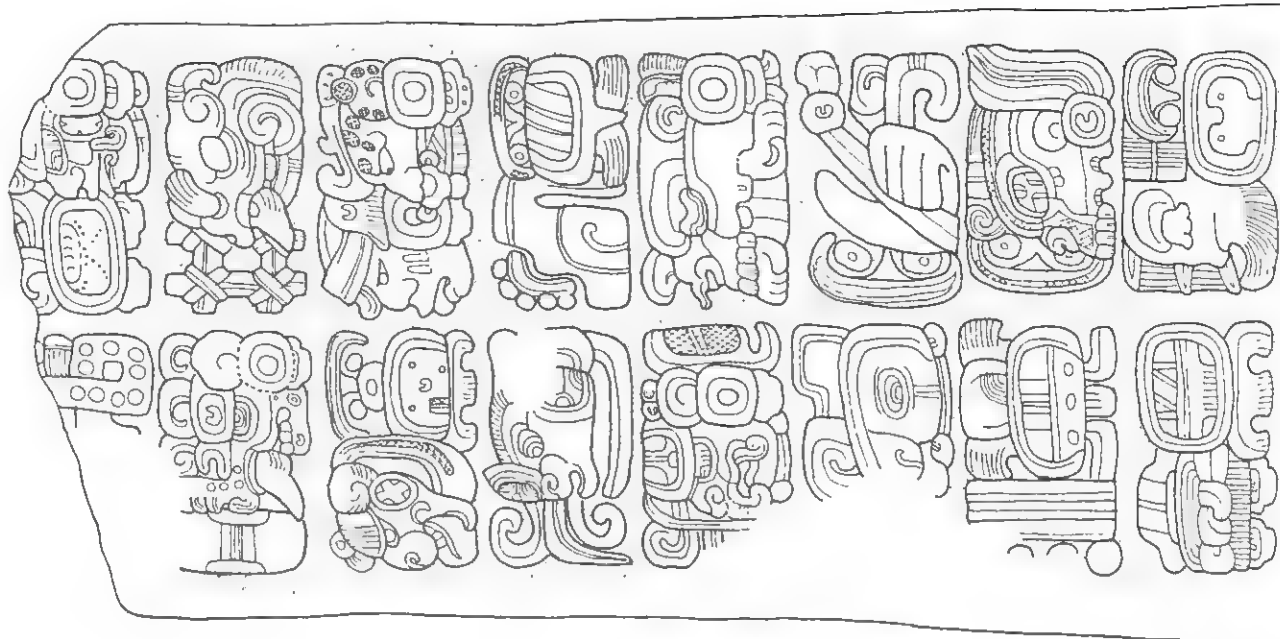
Yax-Moch-Xoc, the Founder of Tikal's Dynasty

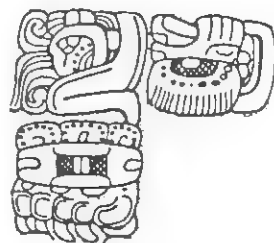
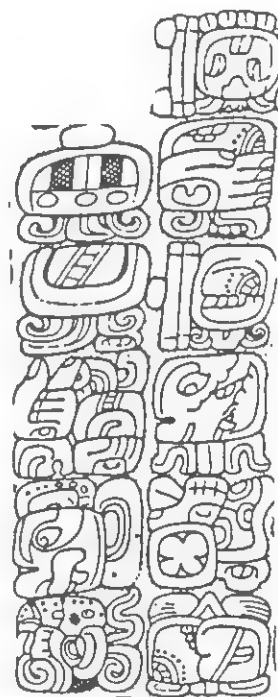
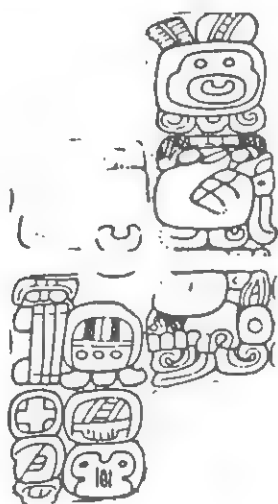


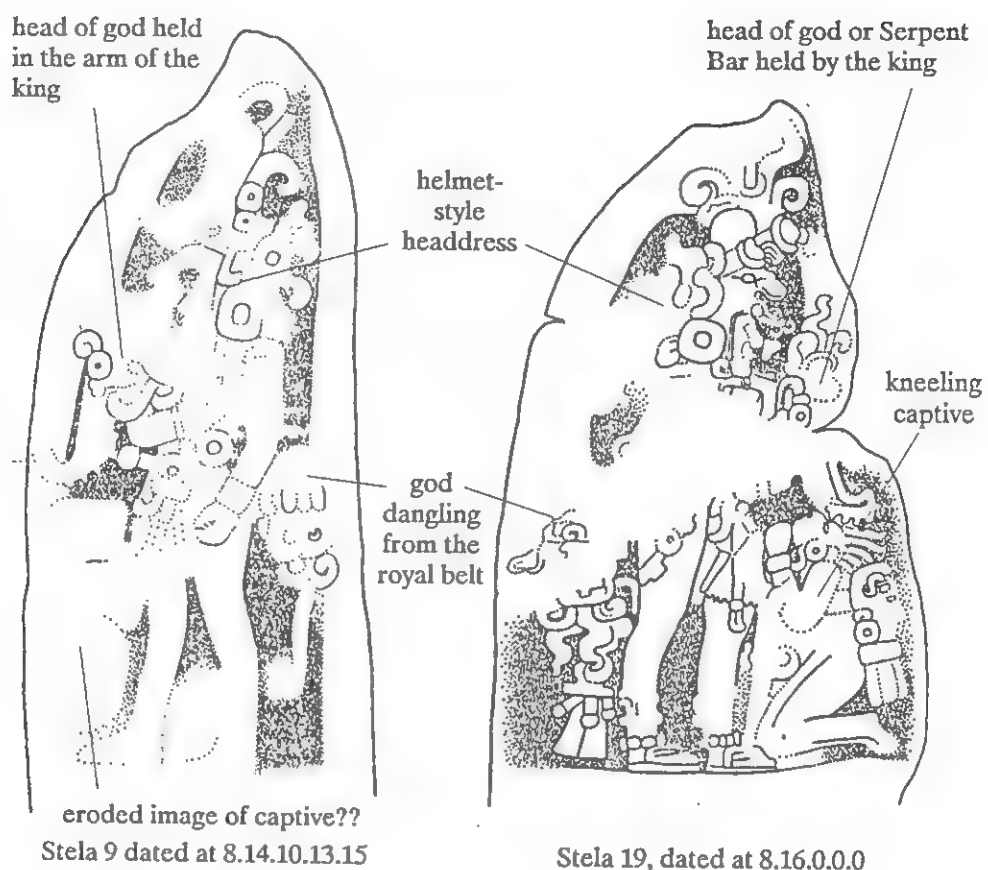
Leiden Plaque
8.14.3.1.12 1 Eb OYaxkin



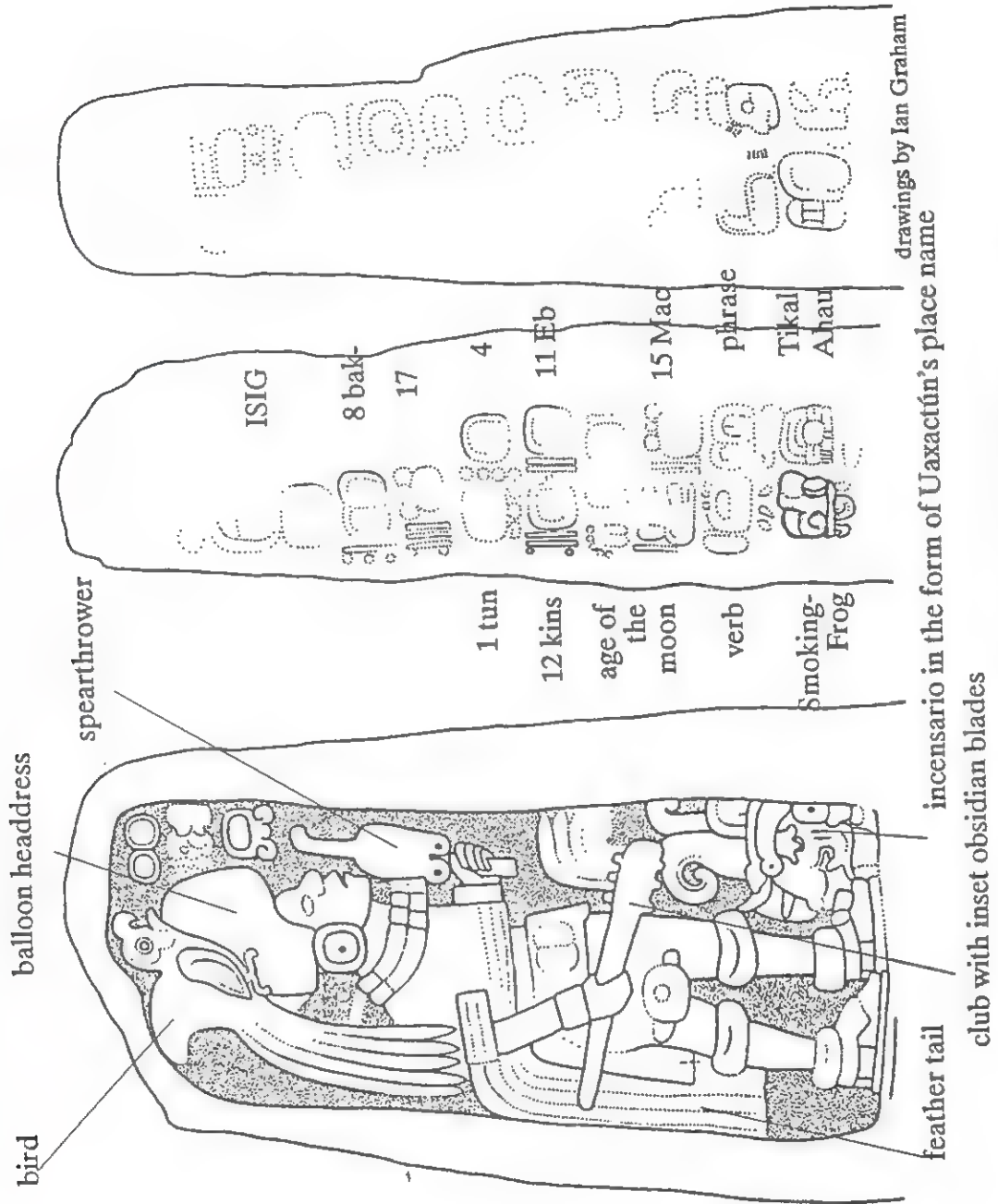
The Tri-lobed Bird and the Place Names of Tikal, Uaxactún, and Copán



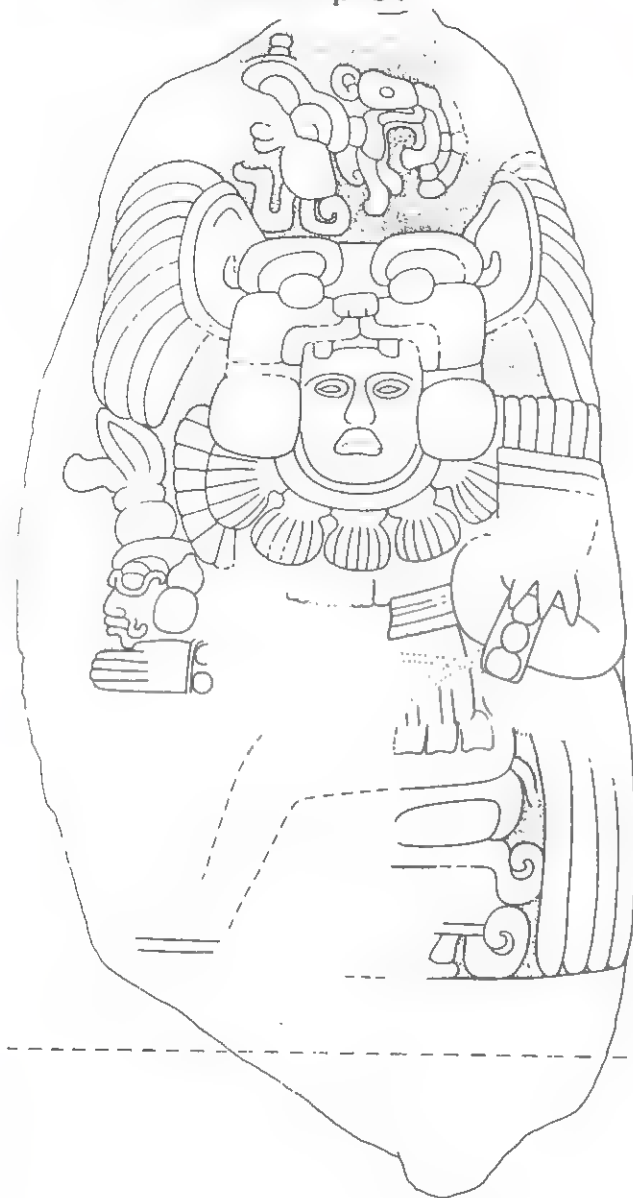




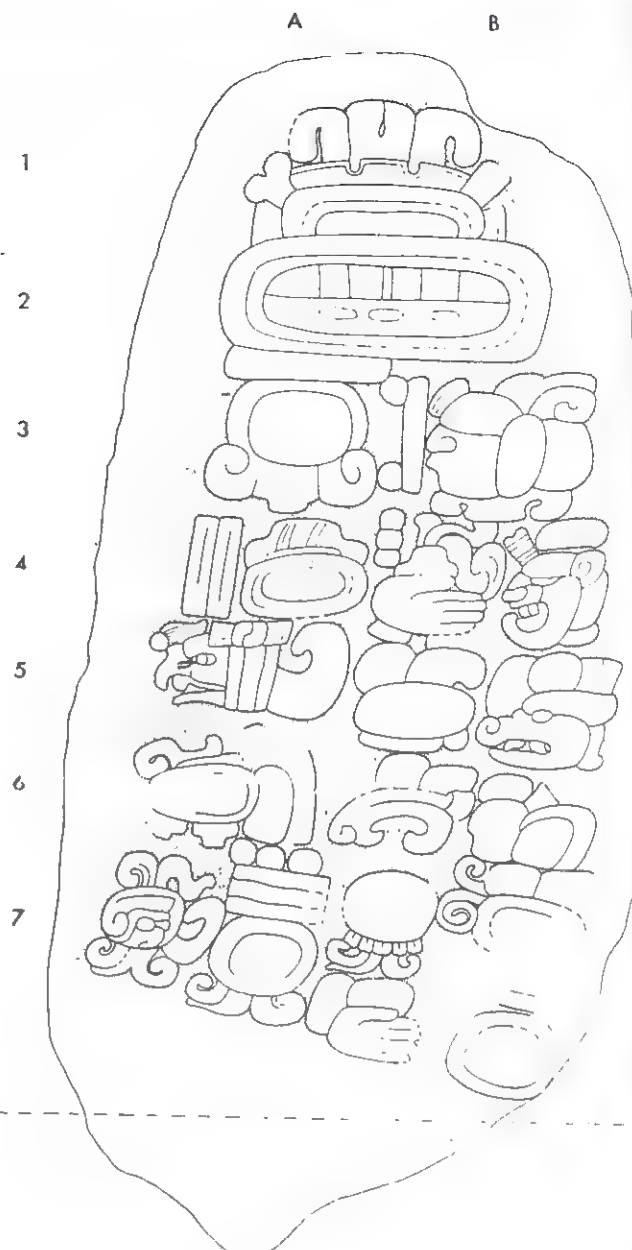
Pre-conquest Stelae from Uaxactún
(drawing by Ian Graham)



Uaxactun Stela 5 Showing Smoking-Frog the Conqueror



a



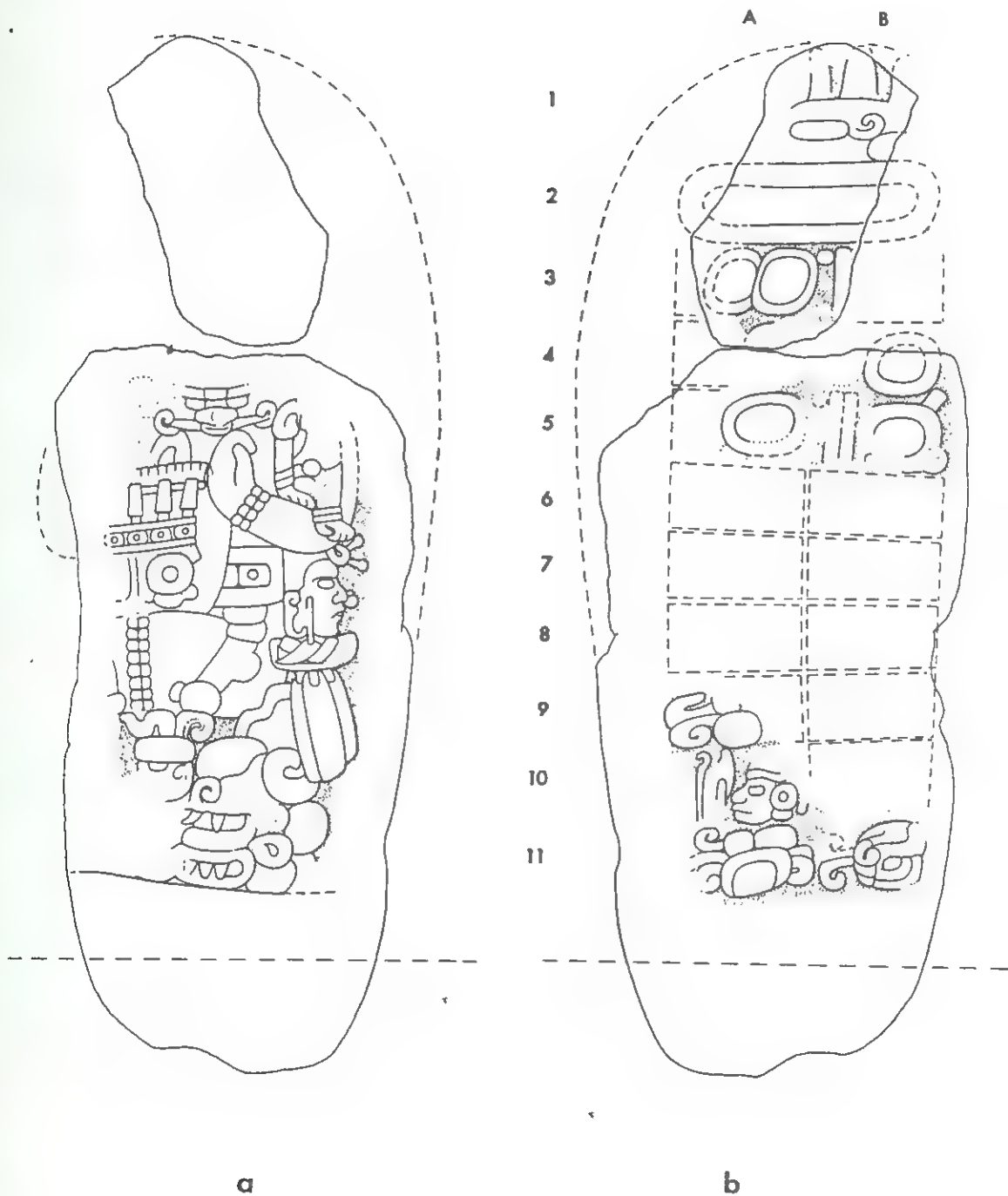
b

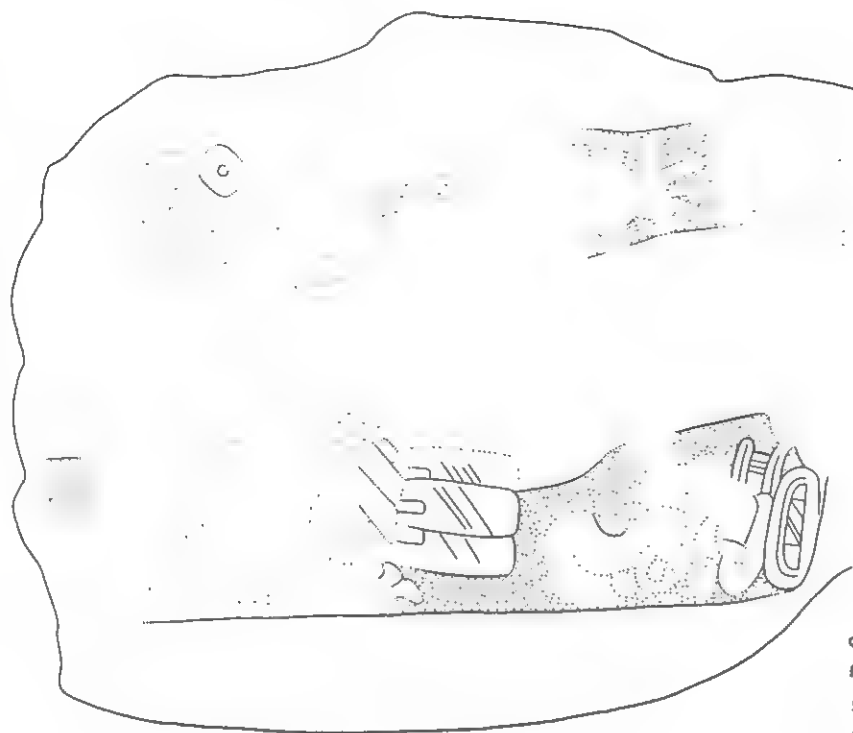
8.17.2.16.17 5 Caban 10 Yaxkin is the only occurrence of a Calendar Round with the components 5 ?? 10 Yaxkin with G4 between 8.16.0.0.0 and 9.0.0.0.0.

Tikal St. 4: a. front; b. back.

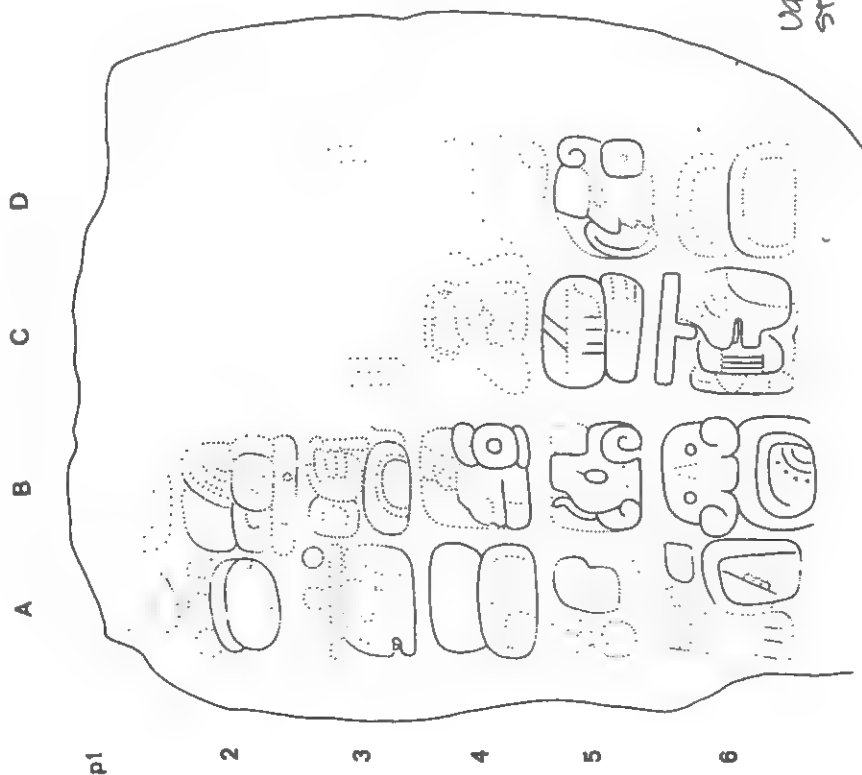
St. 18

8.18.000.





Uaxactun
St. 1 8.18.0.0.0



A B C D

P1

2

3

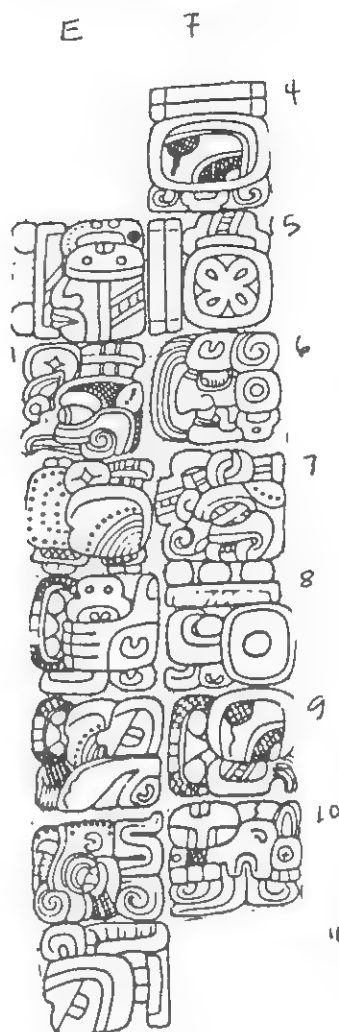
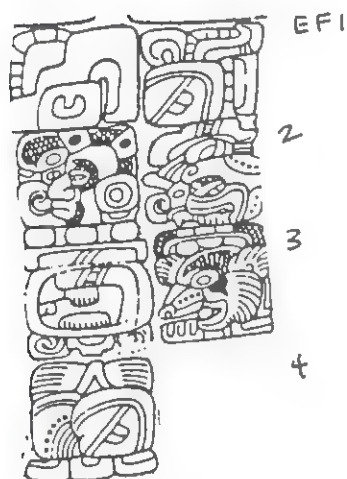
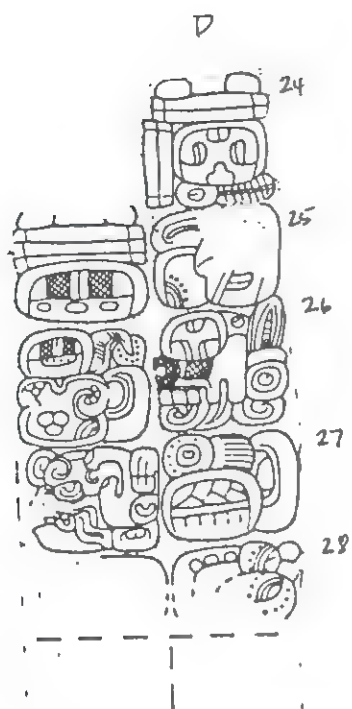
4

5

6

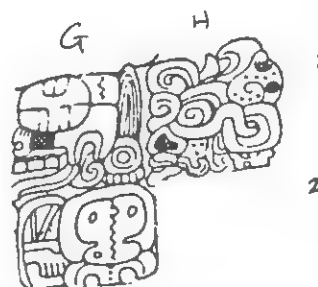
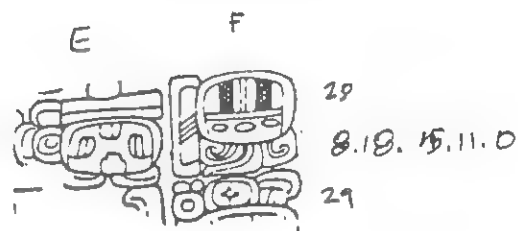
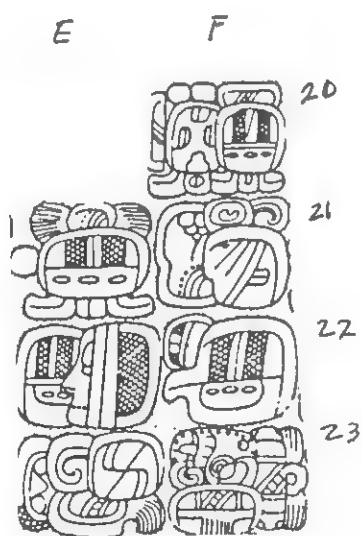
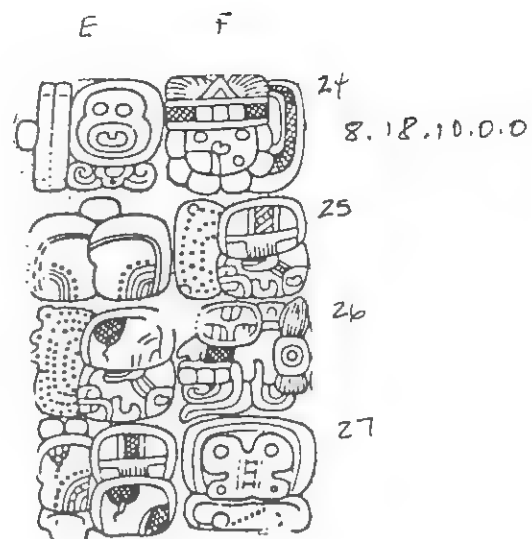
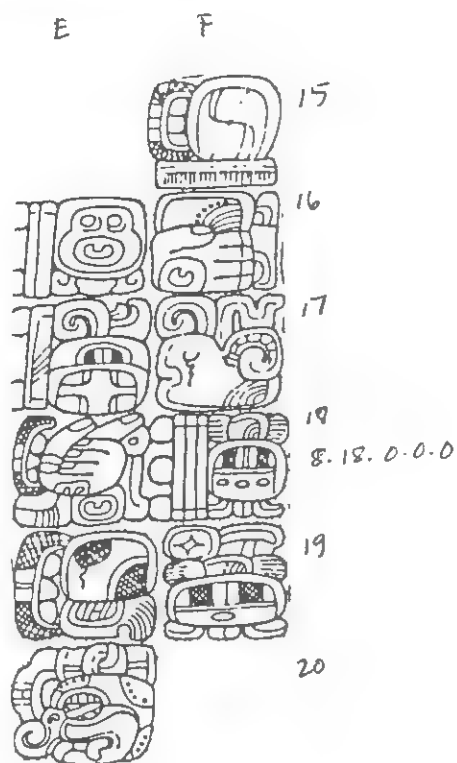


8.17.2.3.16
8.19.14.16.16



8. 17. 1. 4. 12 11 Eb 15 Mac
 - 17 10 12
 8 17 18 15 4 12 Kan 17 Pop
 8. 17. 18 17, 2 11 IK 15 Zip

8. 16. 14. 14. 17 10 Caban 10 Yaxkin
 8 19 7 9 17

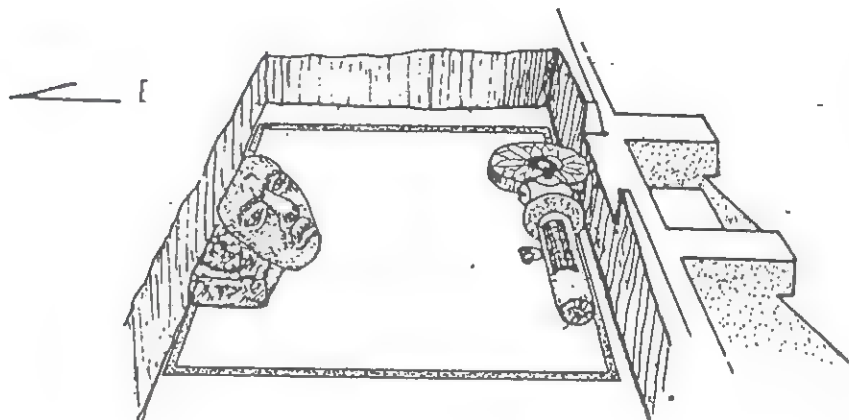


8.19.5.2.5

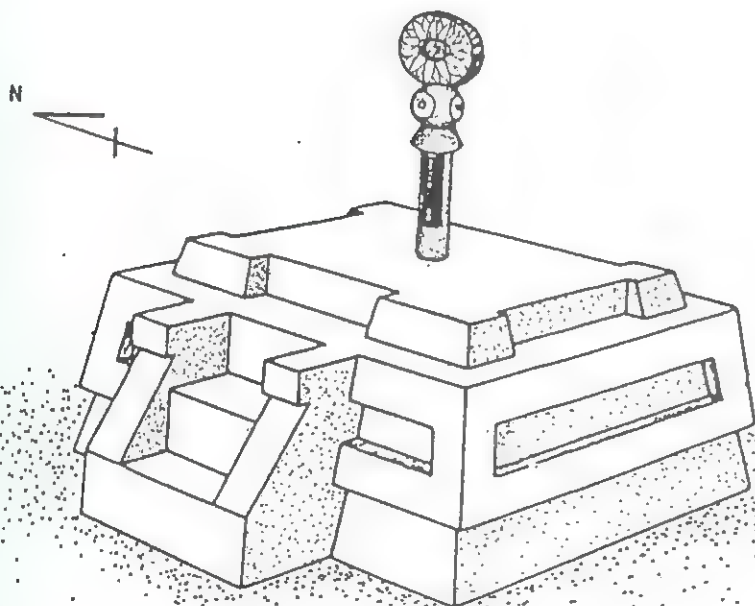
" 8 16.14.15.15 2 Men 8 Mol



MASCARA DE ESTUCO



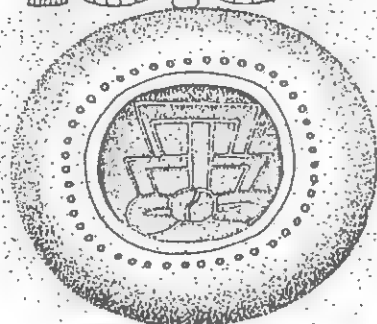
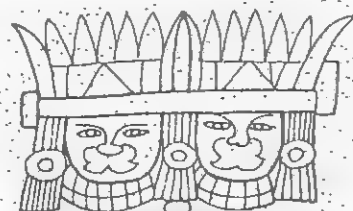
LOCALIZACION



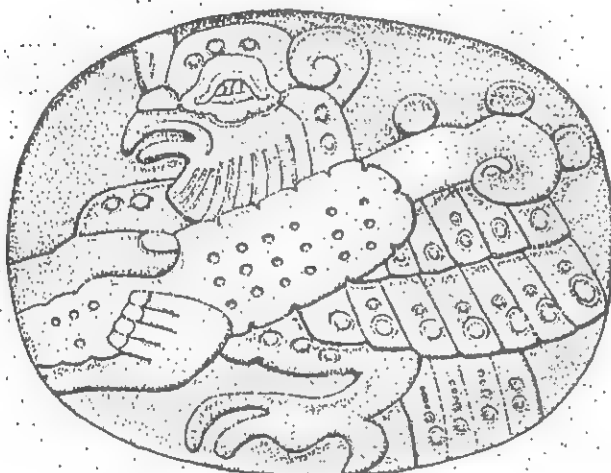
VISTA AL NORESTE

DIB. P. MORALES.

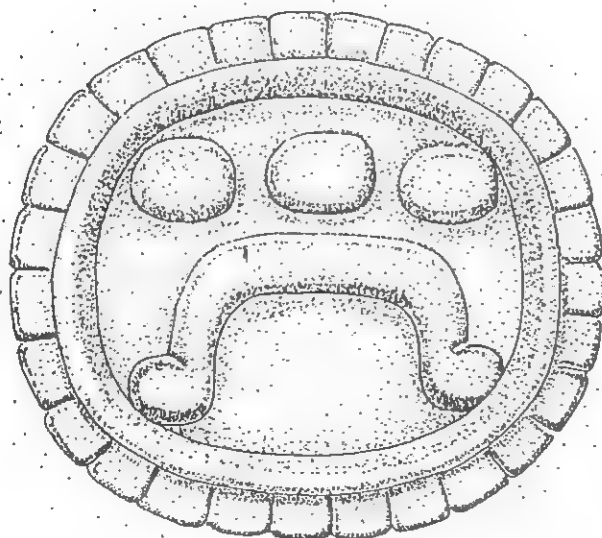
GRUPO 6C-XVI-SUB
ESTRUCTURA SUB-048



LADO B



LADO B



LADO A

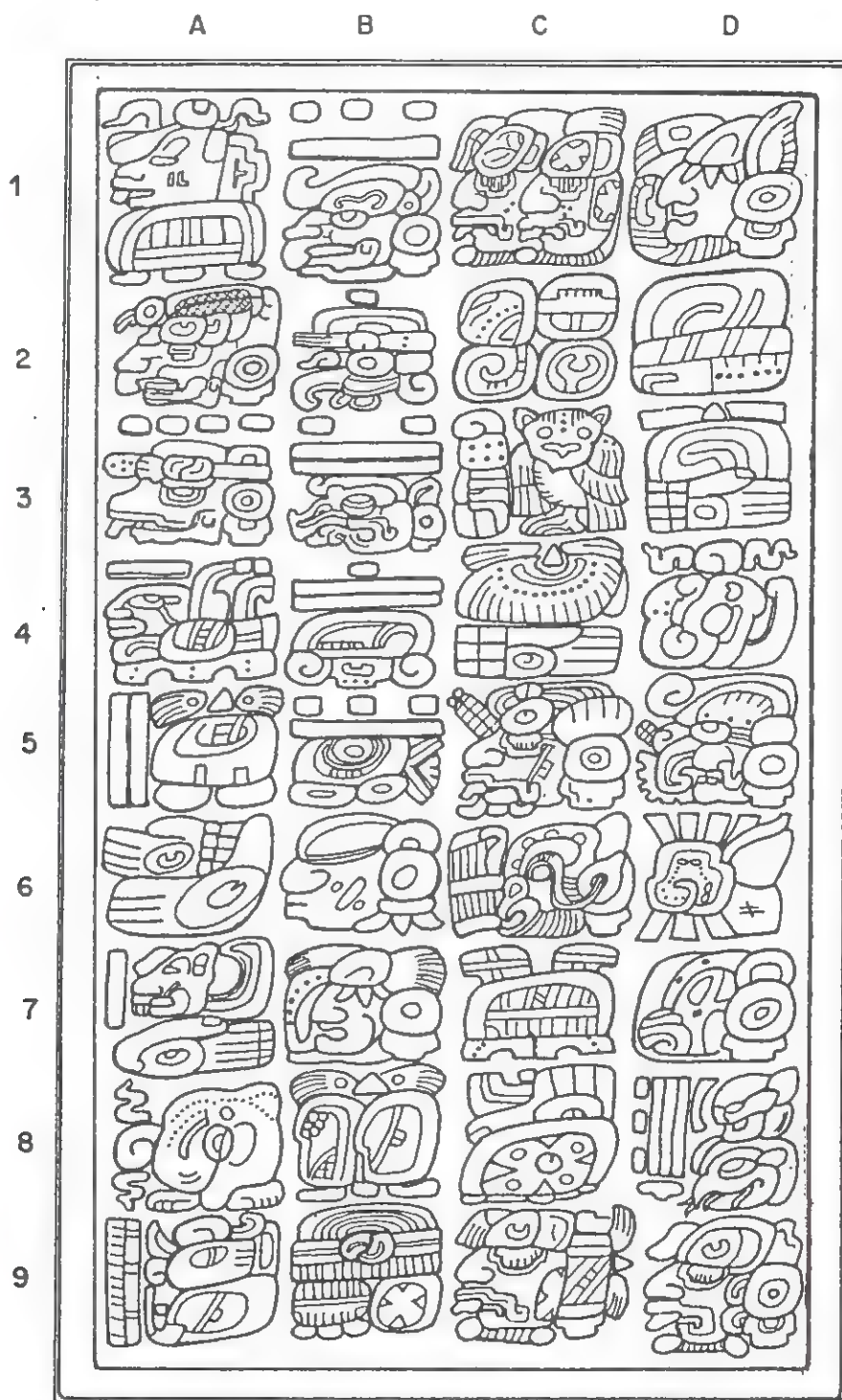
GRUPO 6C-XVI, TIKAL

MARCADOR DE:

JUEGO DE PELOTA

DIB. P. MORALES

FIGURA 118



0 1. 2. 3. CMS
DIB. P. MORALES.

LADO "A"

MARCADOR DE JUEGO DE PELOTA

GRUPO 6C-XVI, TIKAL, PETEN.

FIGURA 116

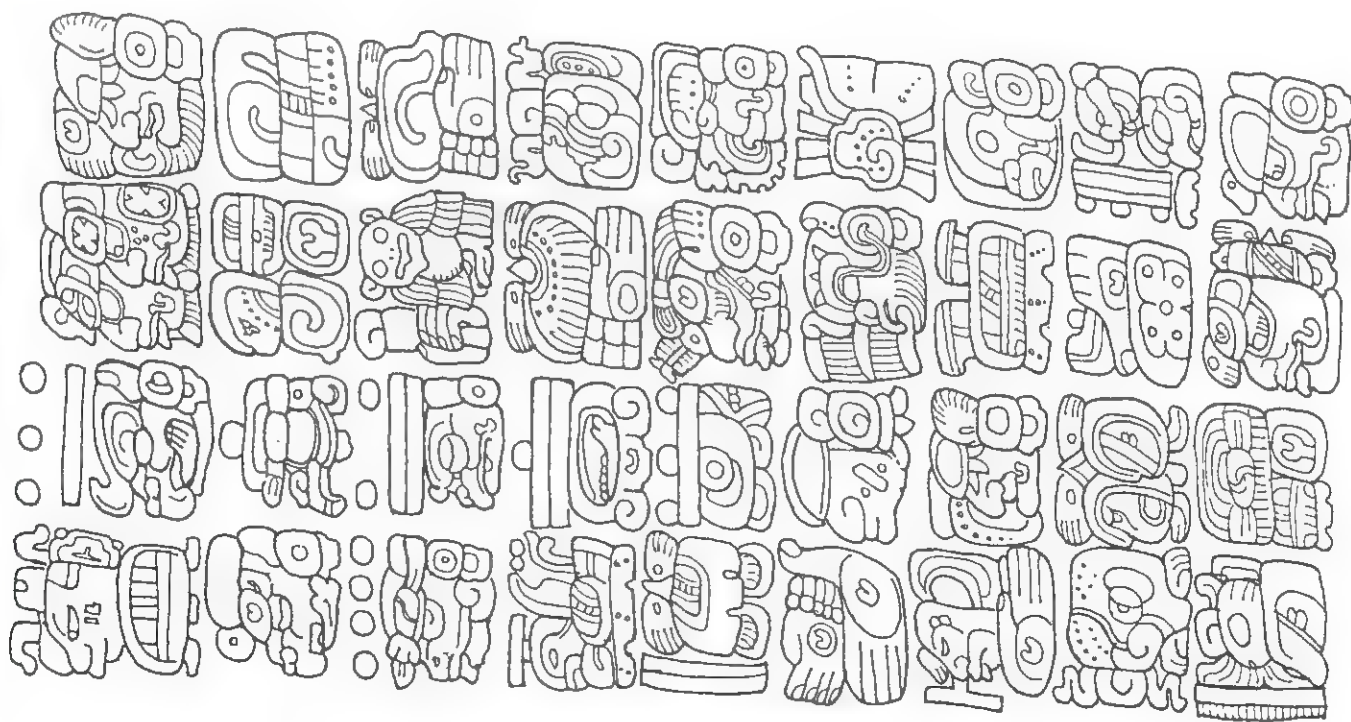
SIDE A : BAUCOURT MARKER GROUP GC-XVI, TIKAL

C D

A B



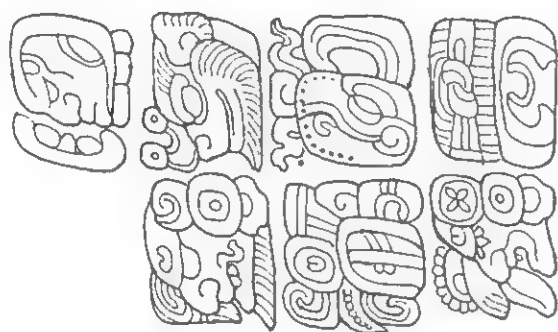
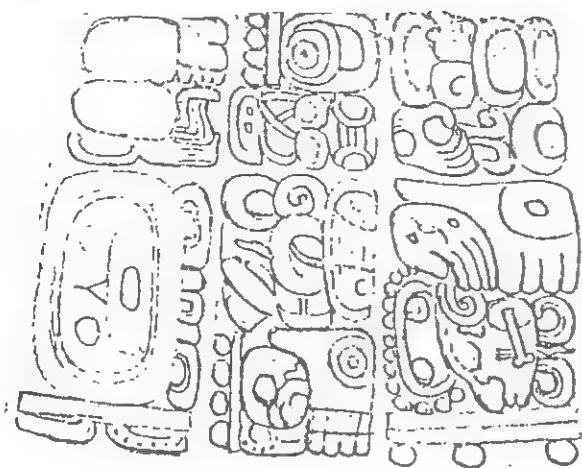
BALLCOURT MARKER



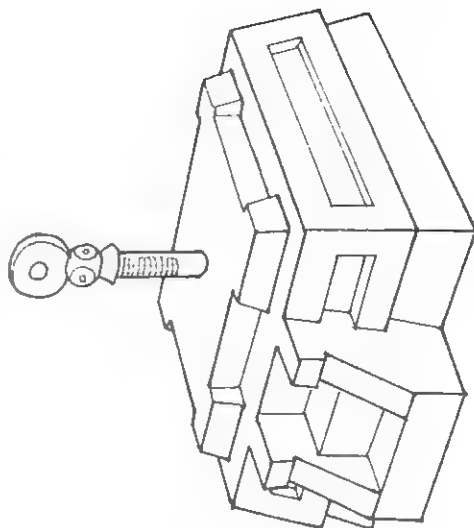
Palenque
T. Insc. 1



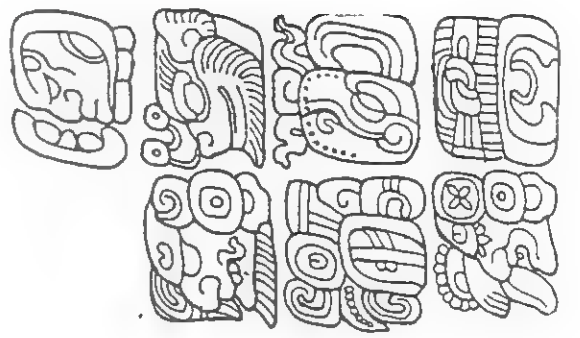
400 3ch'ien



Nimlil Punil ST 15



8.17.1.4.12, 11 Eb 15 Mac. G2. Moon 0.19d; Abn.dist. = -58.61d.
JD 1859137. Julian 378 Jan 15. Gregorian 378 Jan 16. Gr.Corr. = +1.
Venus: -180. Jupiter: +8. Saturn: +116.



BALLCOURT MARKER

8.16.17.09.00 11 Ahau 3 Uayeb

Tikal: 1990 Workshop 93

E F G H

1

2

3

4

5

6

7

8

9

8.19.0.0.0

- 2.3.4

8.18.17.14.9

12 Muluc 12 Kankin

61 Moon Age 16

0 1 2 3 CMS
DIB. P. MORALES

LADO "B"

MARCADOR DE JUEGO DE PELOTA

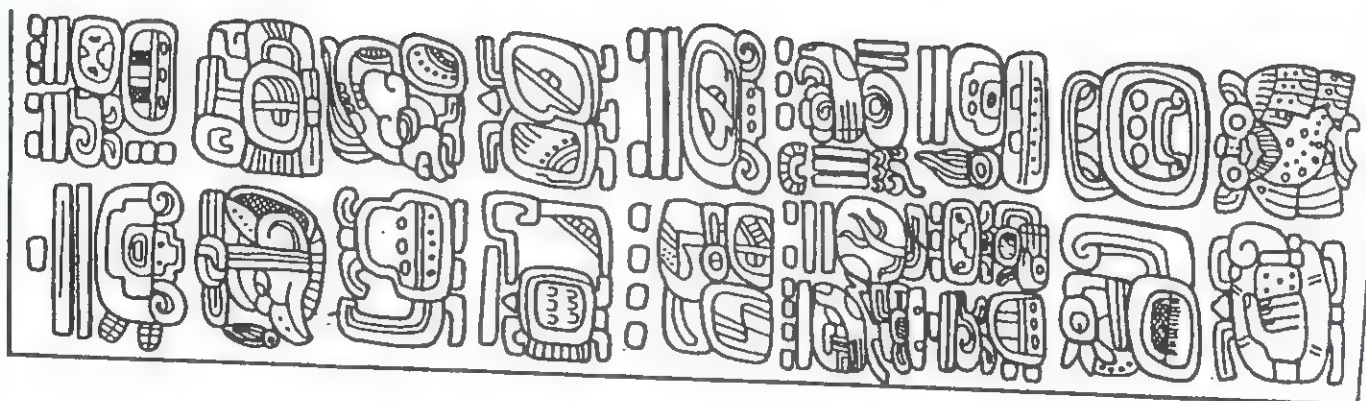
GRUPO 6C-XVI, TIKAL, PETEN.

FIGURA 117

SIDE B: BAUCOURT MARKER, GROUP 6C-XVI, TIKAL

E

F



1

2

3

4

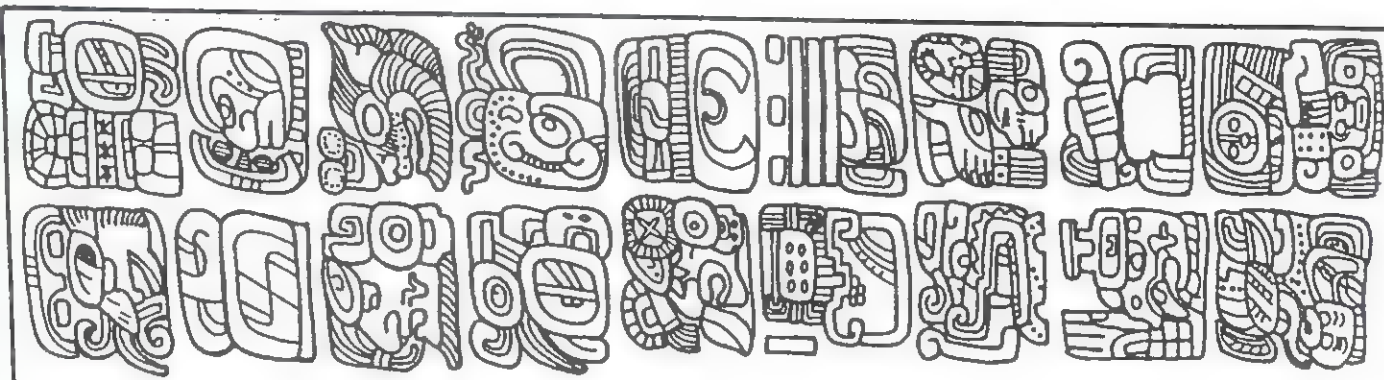
5

6

7

8

9

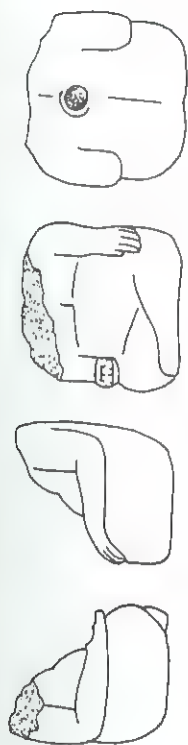


H

G



one meter



TIKAL: HEAD from STRUCTURE
3D-43 5

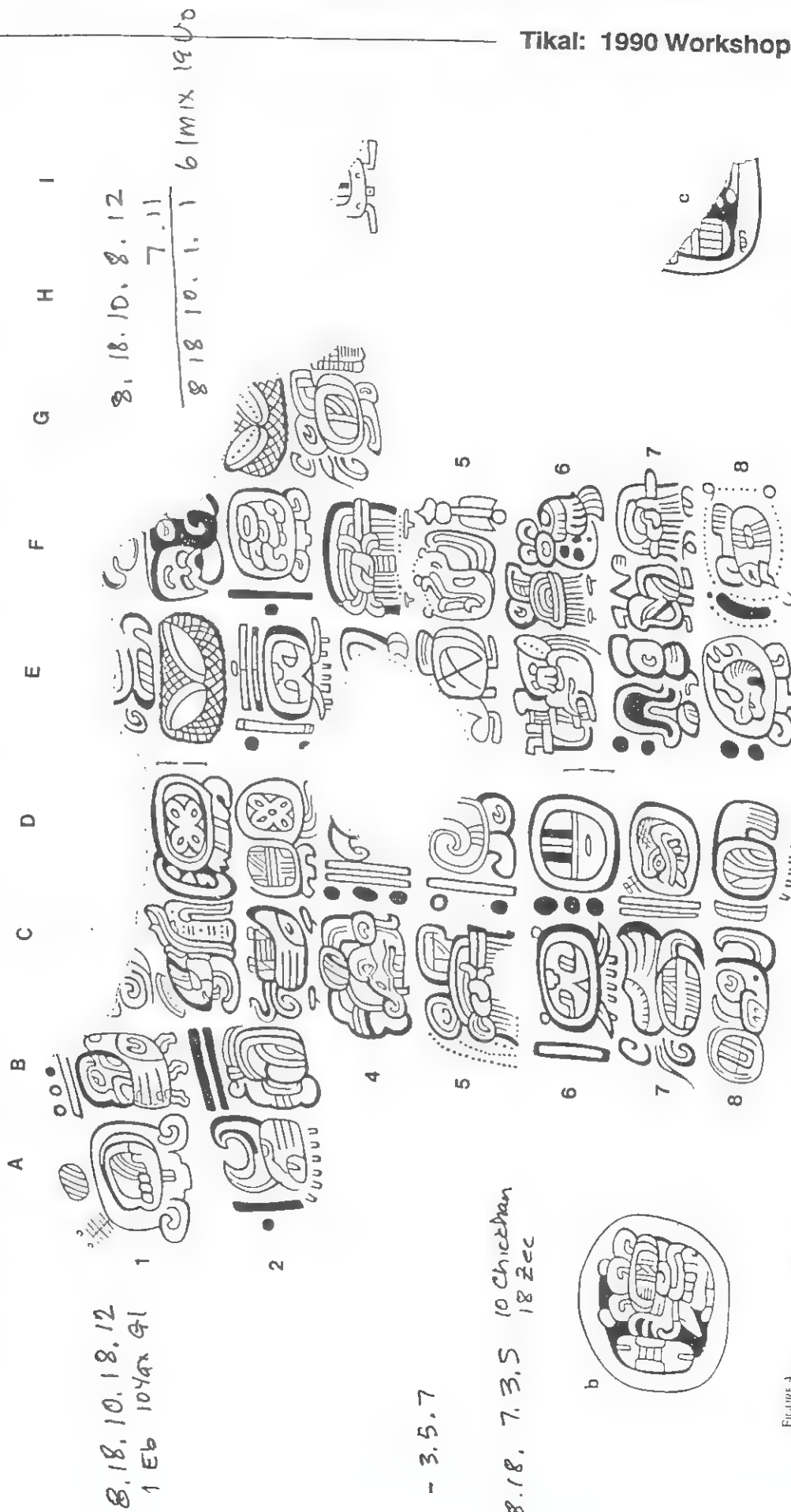
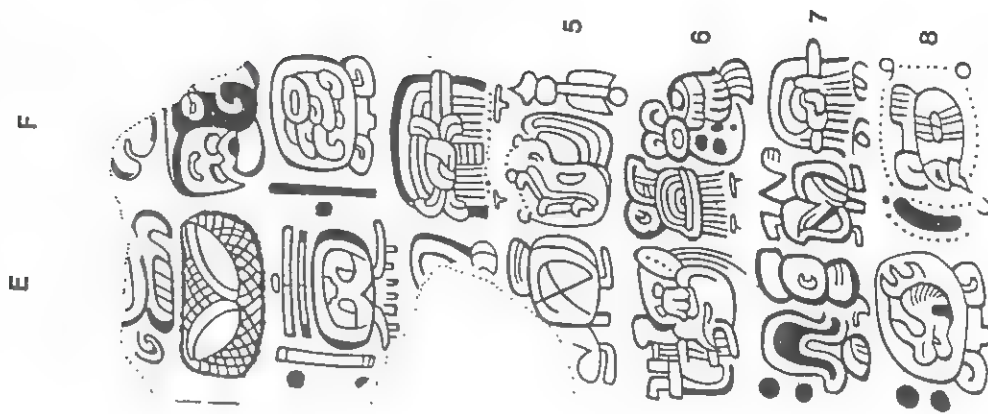
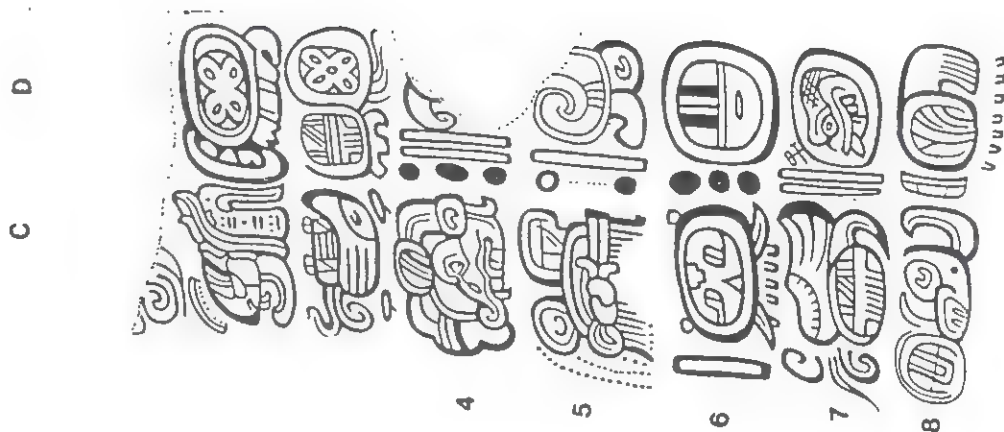


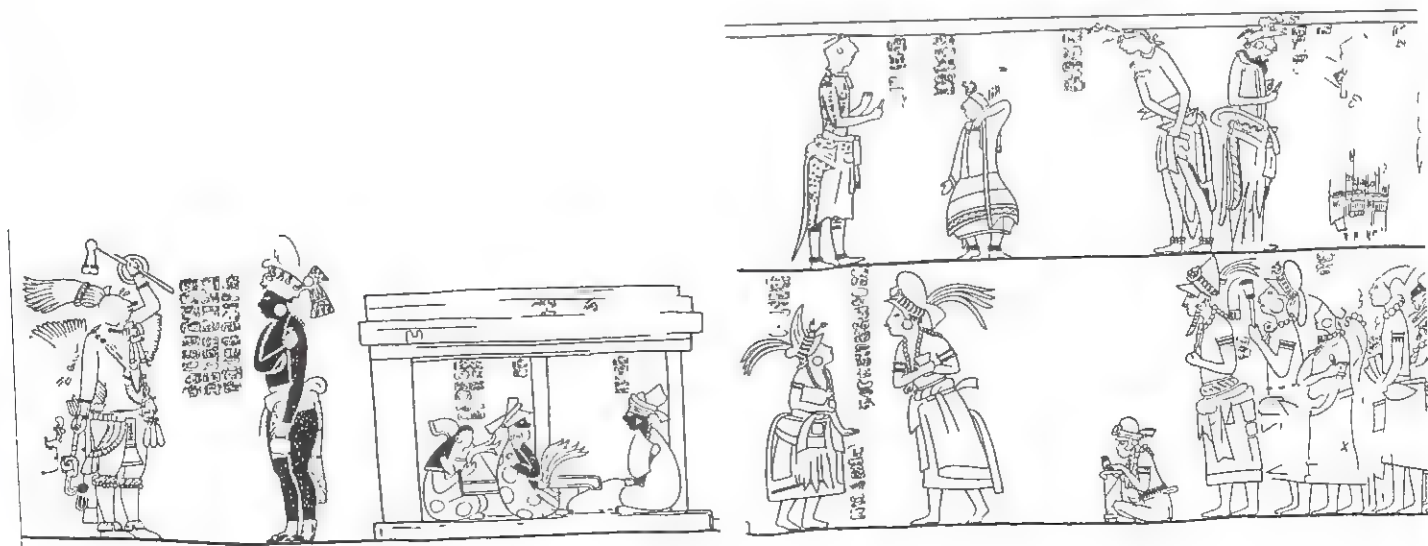
FIGURE 3
THE HIEROGLYPHIC TEXT
DRAWN BY THE AUTHOR FROM THE
ORIGINALS IN THE MUSEUM OF AMERICAN
ARCHAEOLOGY, NEW YORK

TIKAL: HEAD from STRUCTURE 3D-43



G







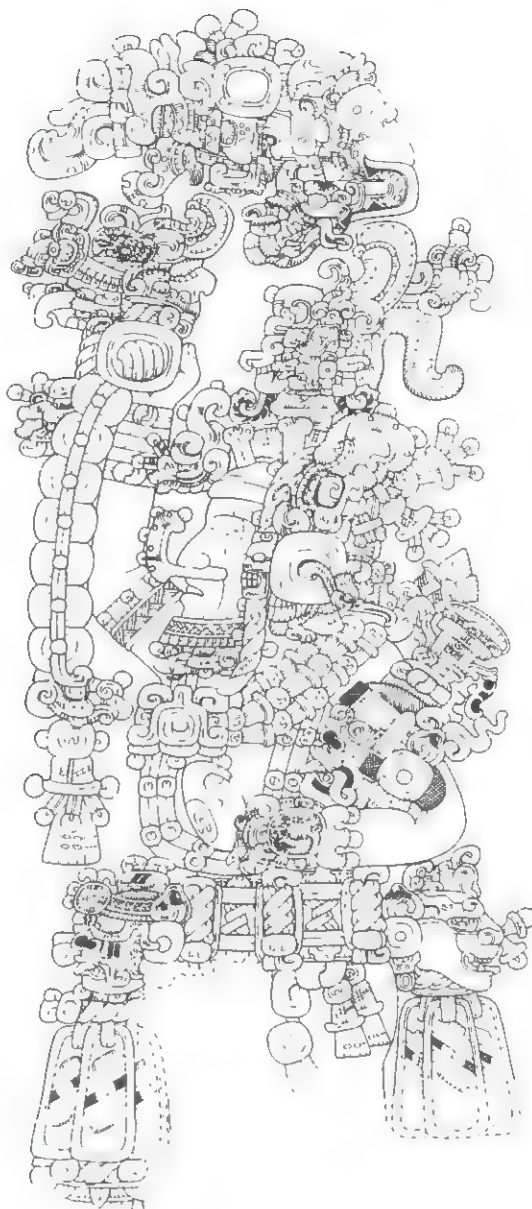
d



e



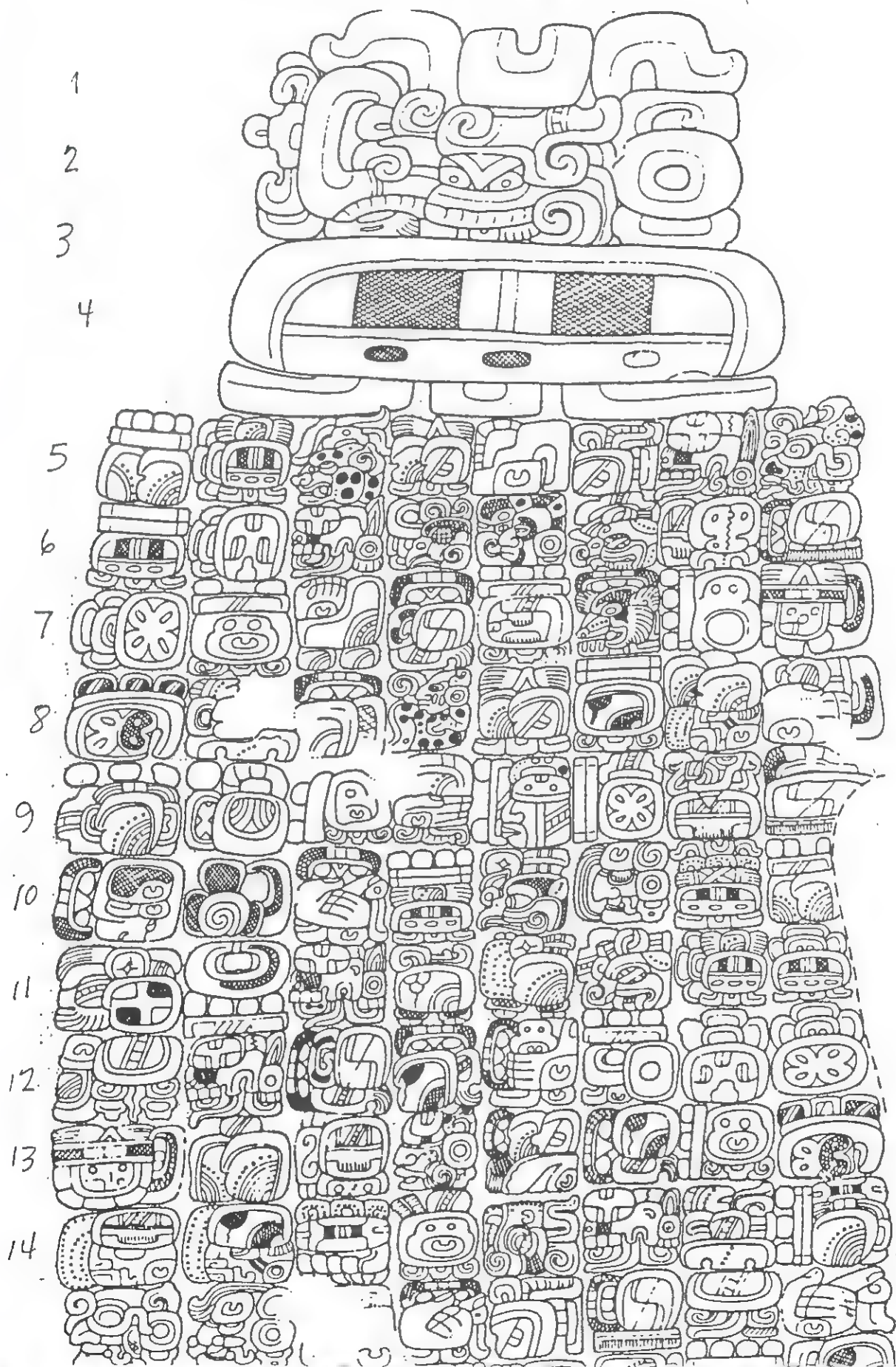
f



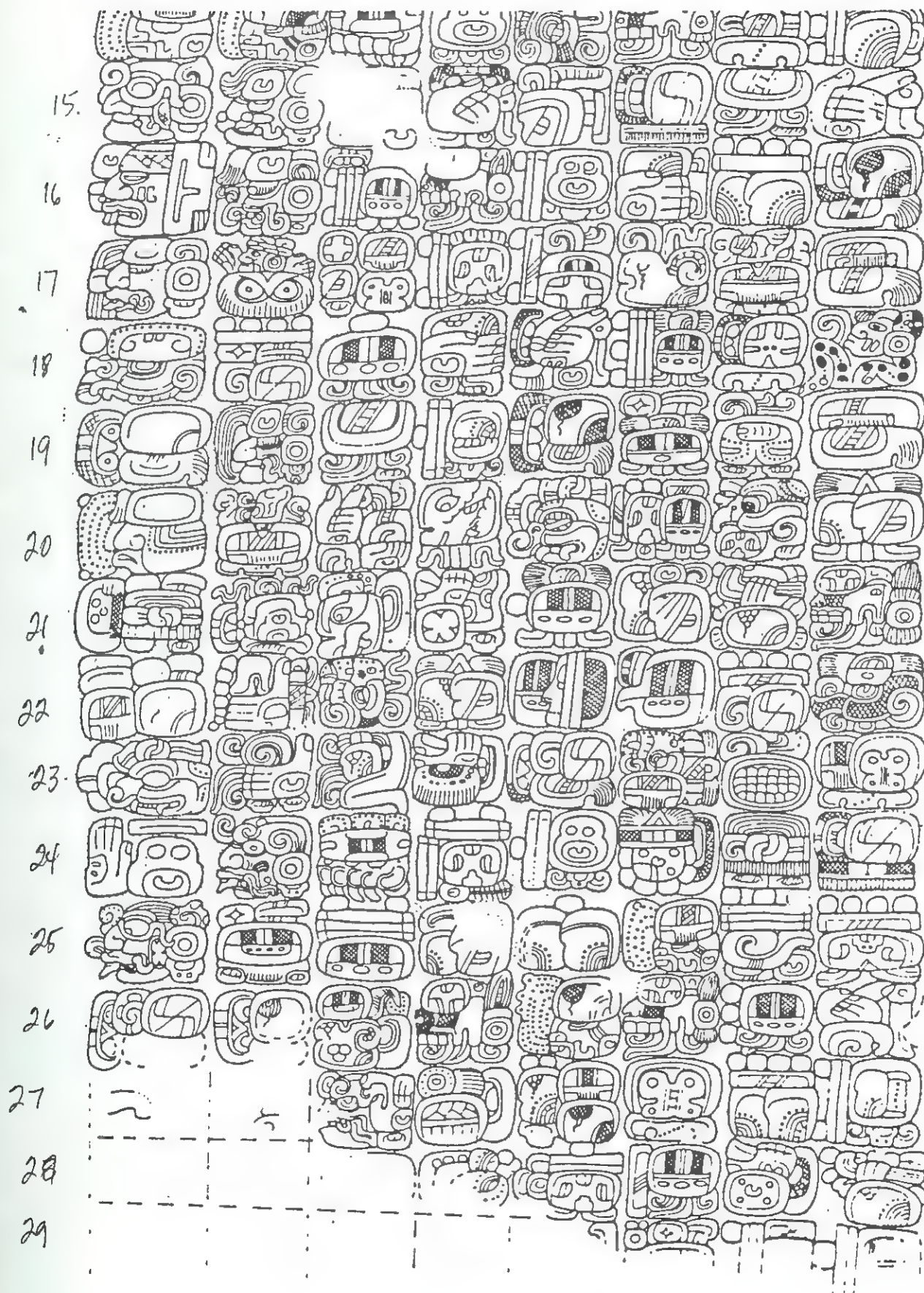
c

STELA 31

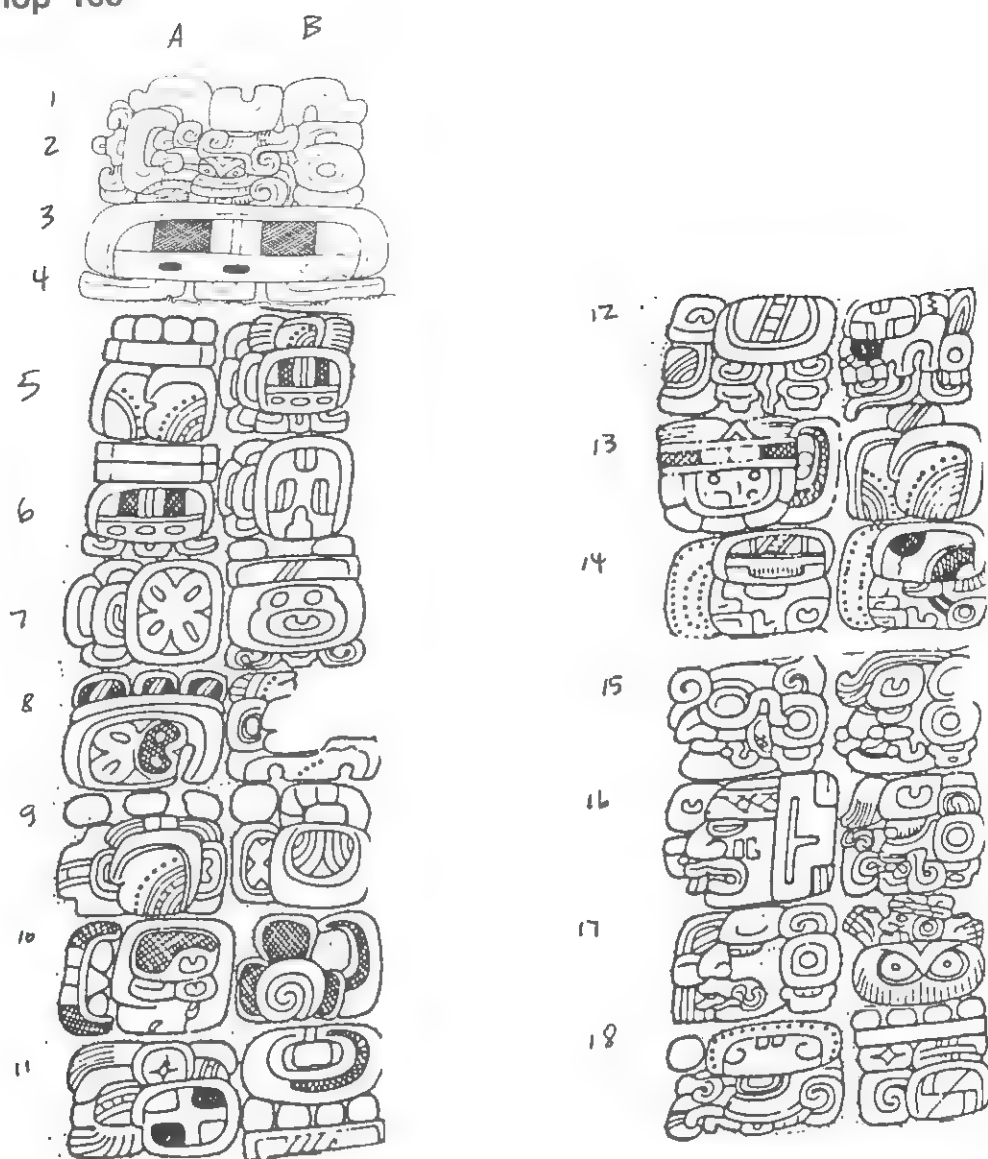
A B C D E F G H



A B C D E F G H

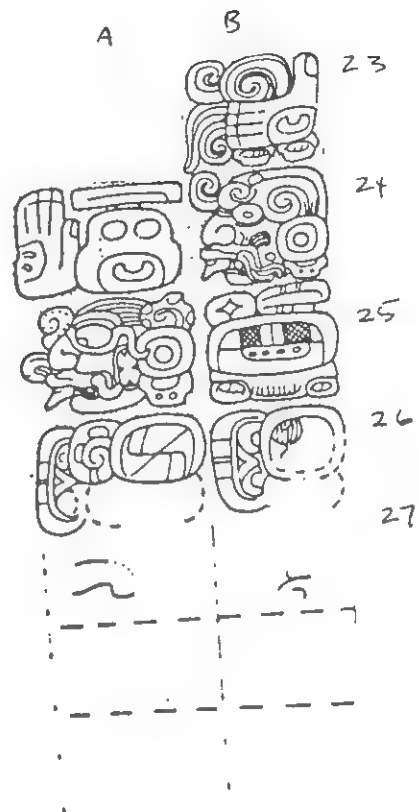
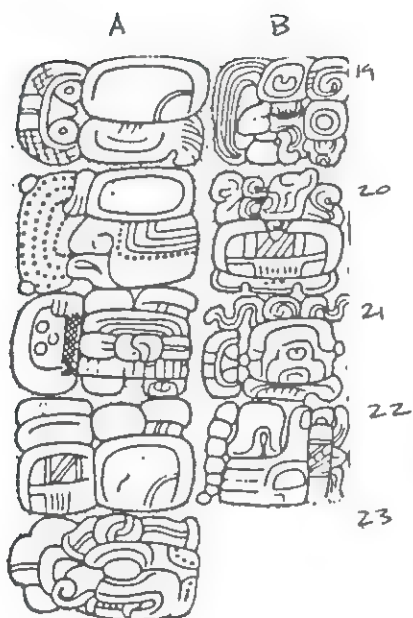


STELA 31



TIKAL ST. 31

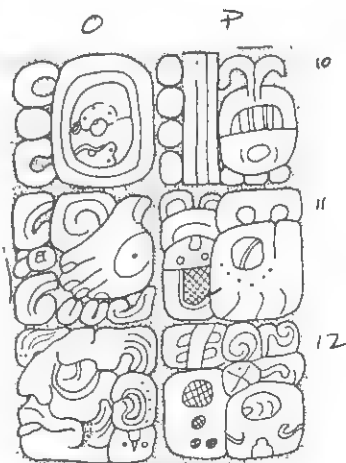
TIKAL ST. 31



Palenque
T. Inscript. west

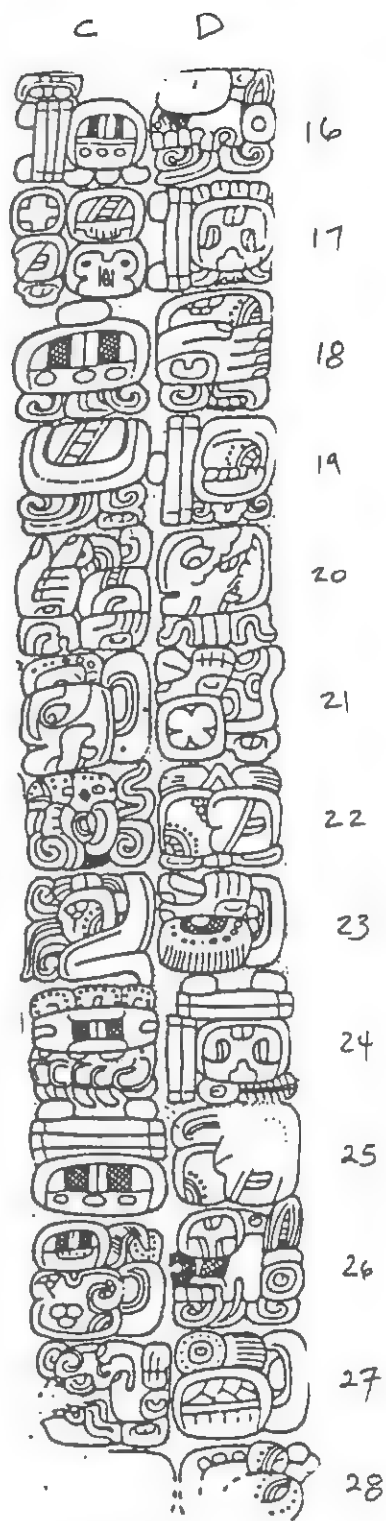
13.4.12.3.16

Jun 23, - 3023 BC



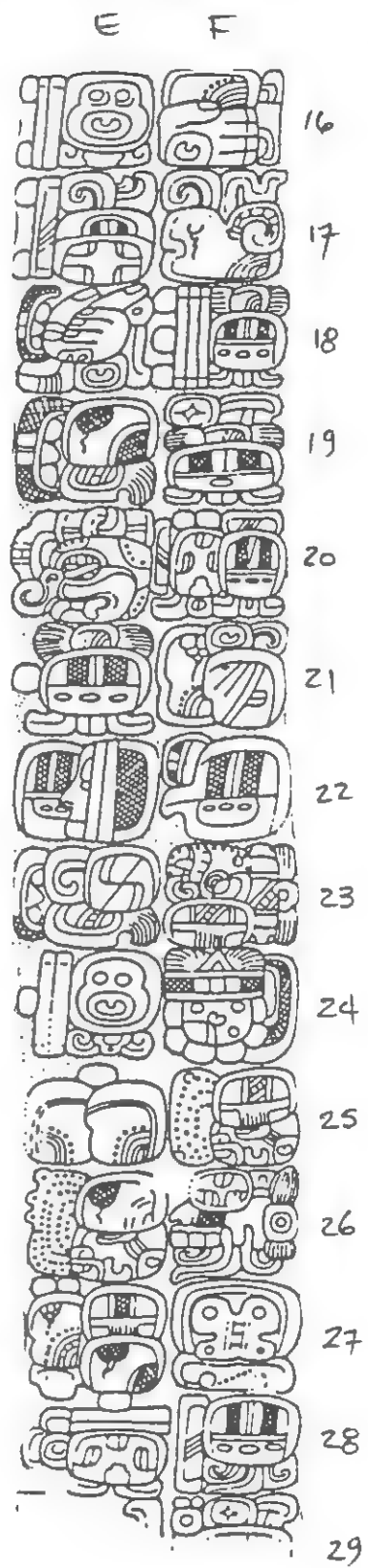


TIKAL ST. 31



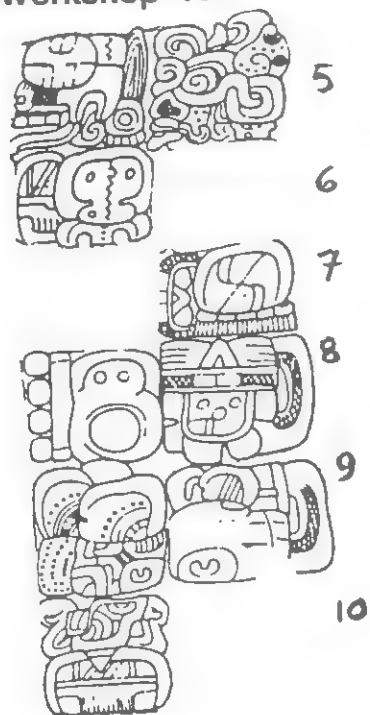


TIKAL ST. 31

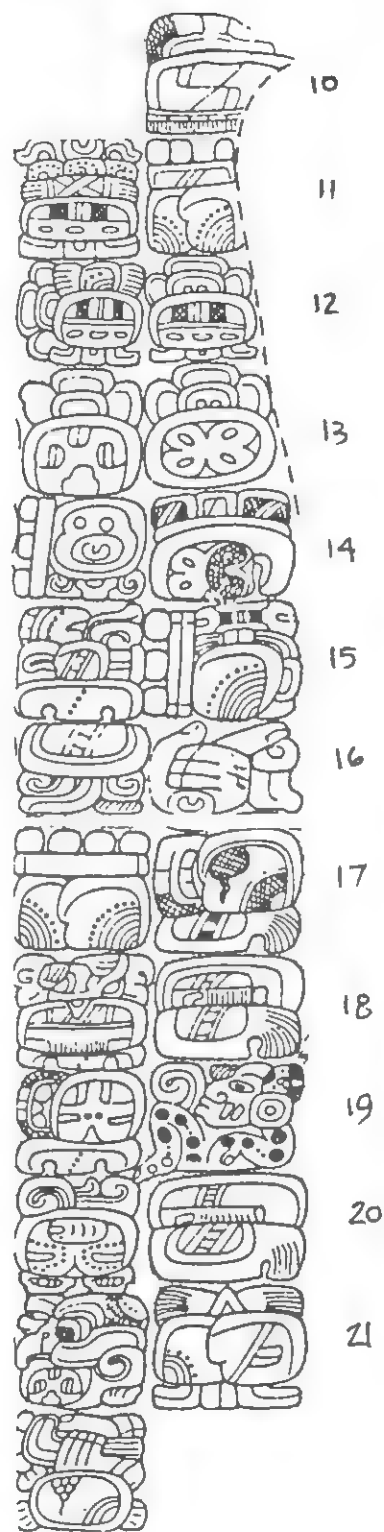


G H

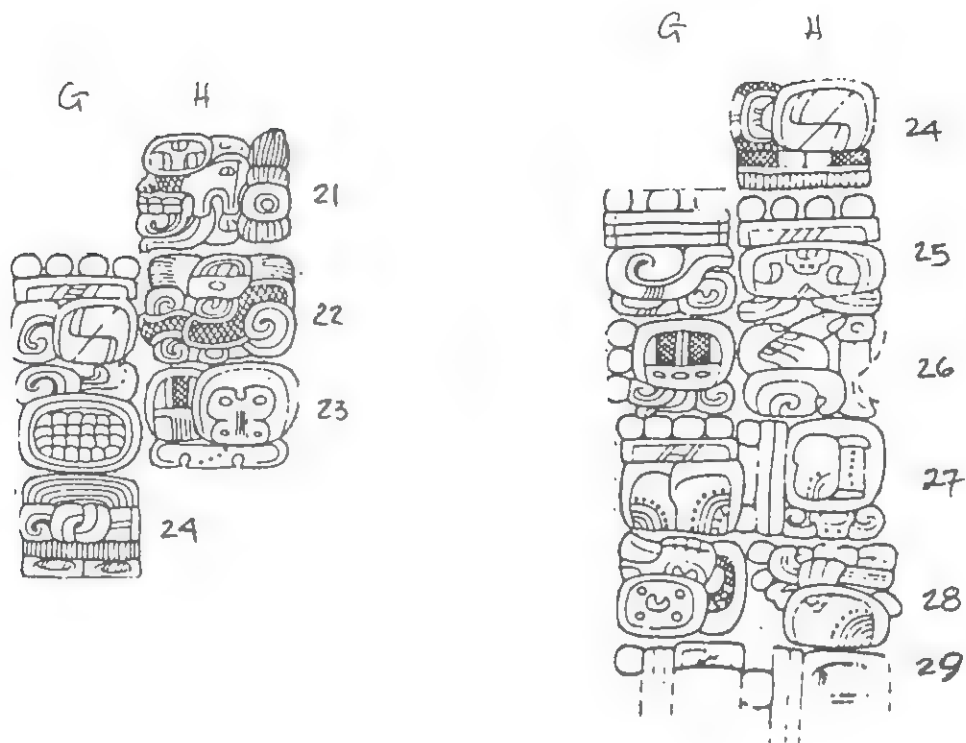
Tikal: 1990 Workshop 102



G H



TIKAL ST. 31



9.0.0.0.0, 8 Ahau 13 Ceh. G9. Moon 4.28d; Abn.dist.= -54.43d.
 JD 1880285. Julian 435 Dec 10. Gregorian 435 Dec 11. Gr.Corr.= +1.
 Venus: -53. Jupiter: +15. Saturn: +91.

9.0.3.9.18, 12 Etznab 11 Zip. G9. Moon 12.47d; Abn.dist.= +10.4d.
 JD 1881563. Julian 439 Jun 10. Gregorian 439 Jun 11. Gr.Corr.= +1.
 Venus: +57. Jupiter: +96. Saturn: -143.

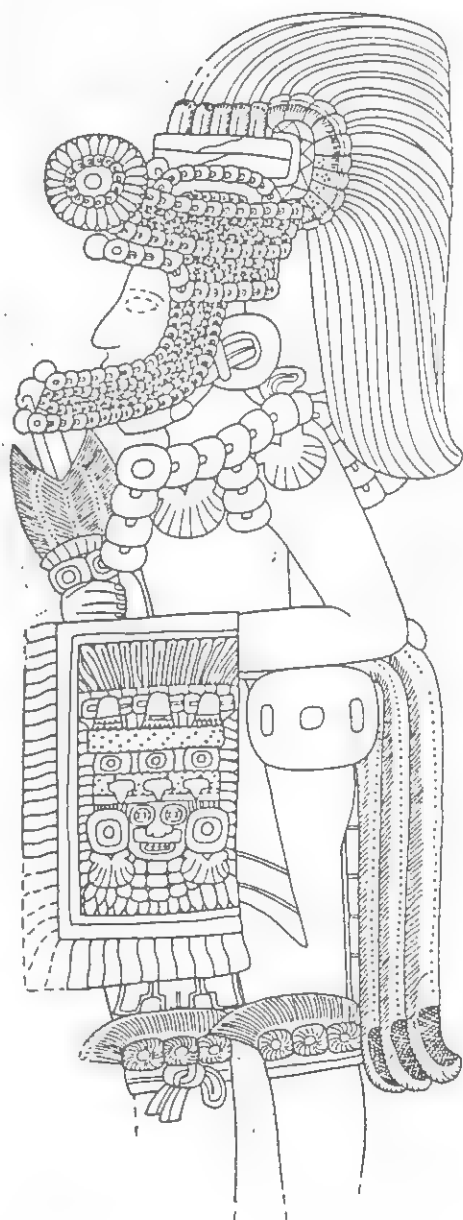
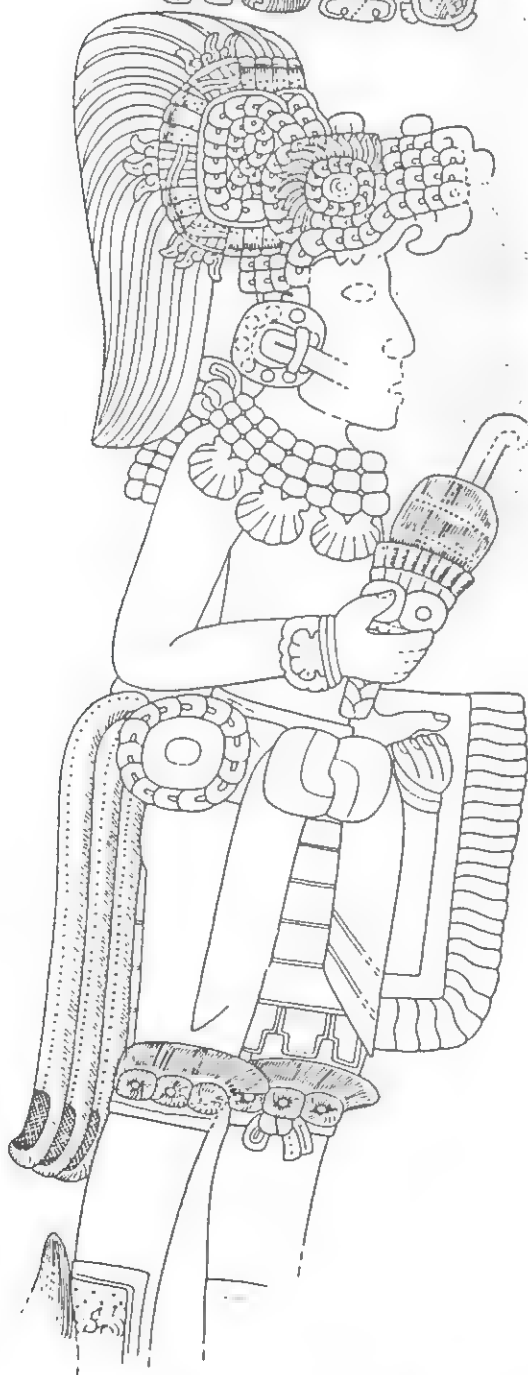
12.5.17










9.0.15.15.15, 3 Men 8 Xul. G9. Moon 19.88d; Abn.dist.= -58.67d.
 JD 1886000. Julian 451 Aug 3. Gregorian 451 Aug 4. Gr.Corr.= +1.
 Venus: -177. Jupiter: +146. Saturn: +135.

TIKAL ST. 31

I J K L

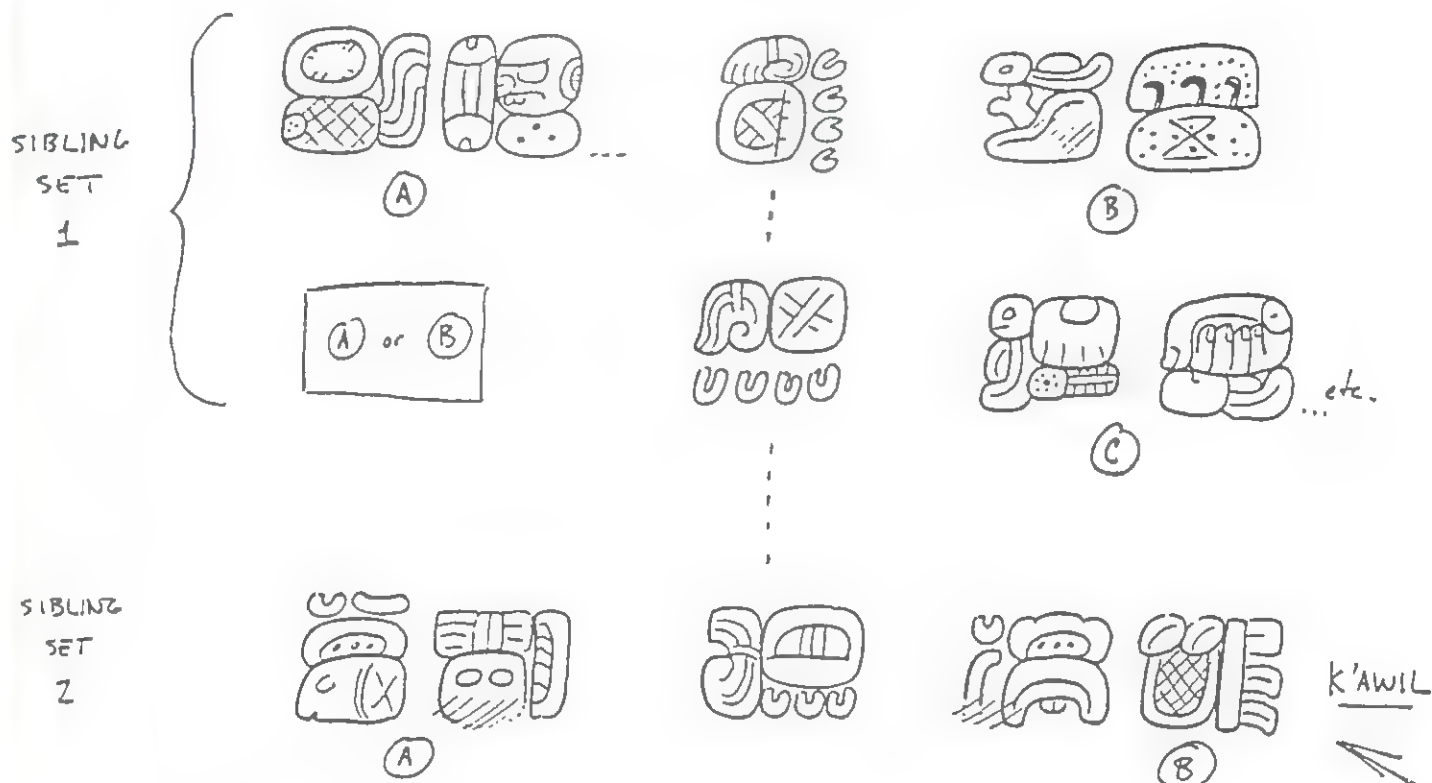
M N O P



	name	relationship	name
a. Ballcourt Marker	 Smoking-Frog	 <i>ih</i> tan sibling	 Spearthrower- owl
b. Stela 31, side	 Curl-Snout	 the child of	 Spearthrower- Shield
c. Stela 31, side	 Curl-Snout	 <i>unen</i> the child of	 Spearthrower- Shield

Kinship Relationships of Smoking-Frog and Curl-Snout of Tikal

Chichen Itza, 4 Lintels, Lintel Z (and others)



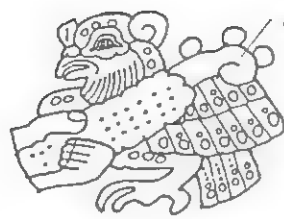
NB - Front side of Italakal lintel seems to give a sibling reference involving Kak'upakal, and perhaps another involving Yax Uk'u - K'awil. Hunpiktok' is named on the underside of the Italakal lintel.

[see Lizana's discussion of Itzamal history, re. Kak'upakal + Hunpiktok]

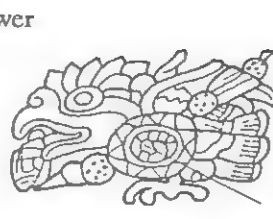
Also, there are no doubt more names that can be linked to those here; this is just a preliminary listing.

Letter from David Stuart

1988



spearthrower



dart

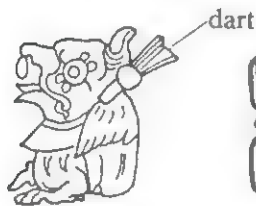


shield

Spearthrower and owl
from the Tikal Ballcourt

Owl, shield, and dart
from the headdress
medallion on Tikal Stela

Owl, shield, and dart
from a name on a set
of earflares



dart



dart



Owl with dart as
Pacal's name on
the Tablet of the
Slaves at Palenque

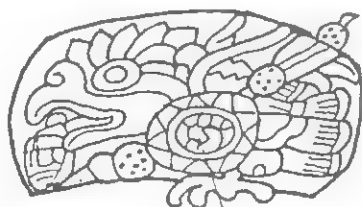
The owl as the head
variant of the Pacal
"shield" name at
Palenque

The Pacal name
as the shield on
the Tablet of the
96 Glyphs

The Pacal owl with
dart as G3 of the
Lords of the Night,
Yaxchilán Lintel 10

Variants of the Shield, Owl, and Spearthrower

Curl-Snout recalled by Stormy-Sky's bloodletting
headdress with its spearthrower-shield medallion



spearthrower-
shield

he let
blood



the same
action

the Stela 31 action



genital
blood-
letting

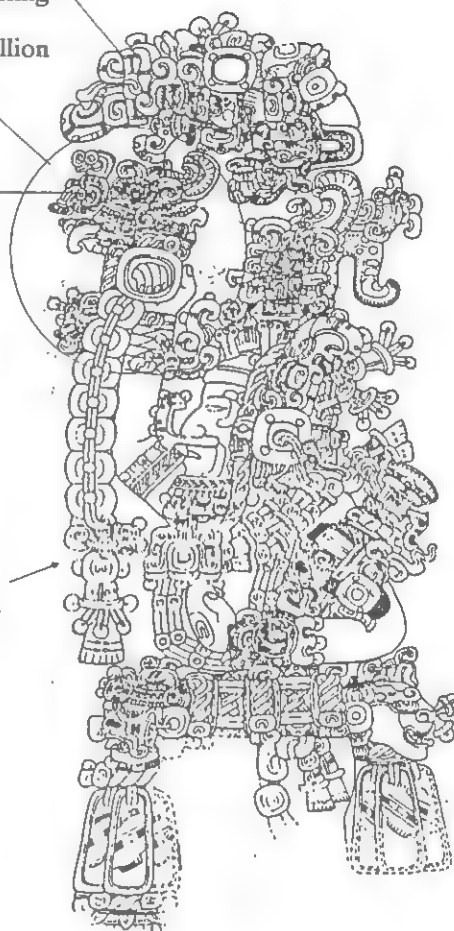
he let
blood



Great-
Jaguar-
Paw

The actions of Great-Jaguar-Paw at the
conquest of Uaxactún

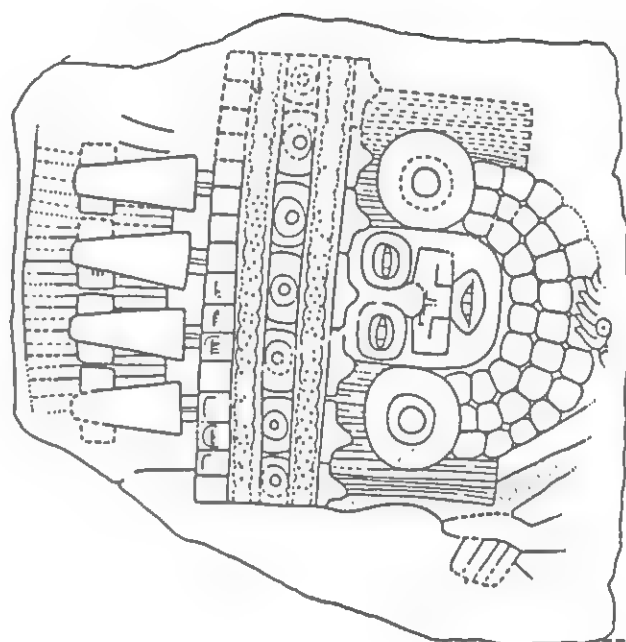
Stormy-Sky holding his headdress aloft
as the holder of the spearthrower-shield
title



The Spearthrower Title and Stormy-Sky at Tikal

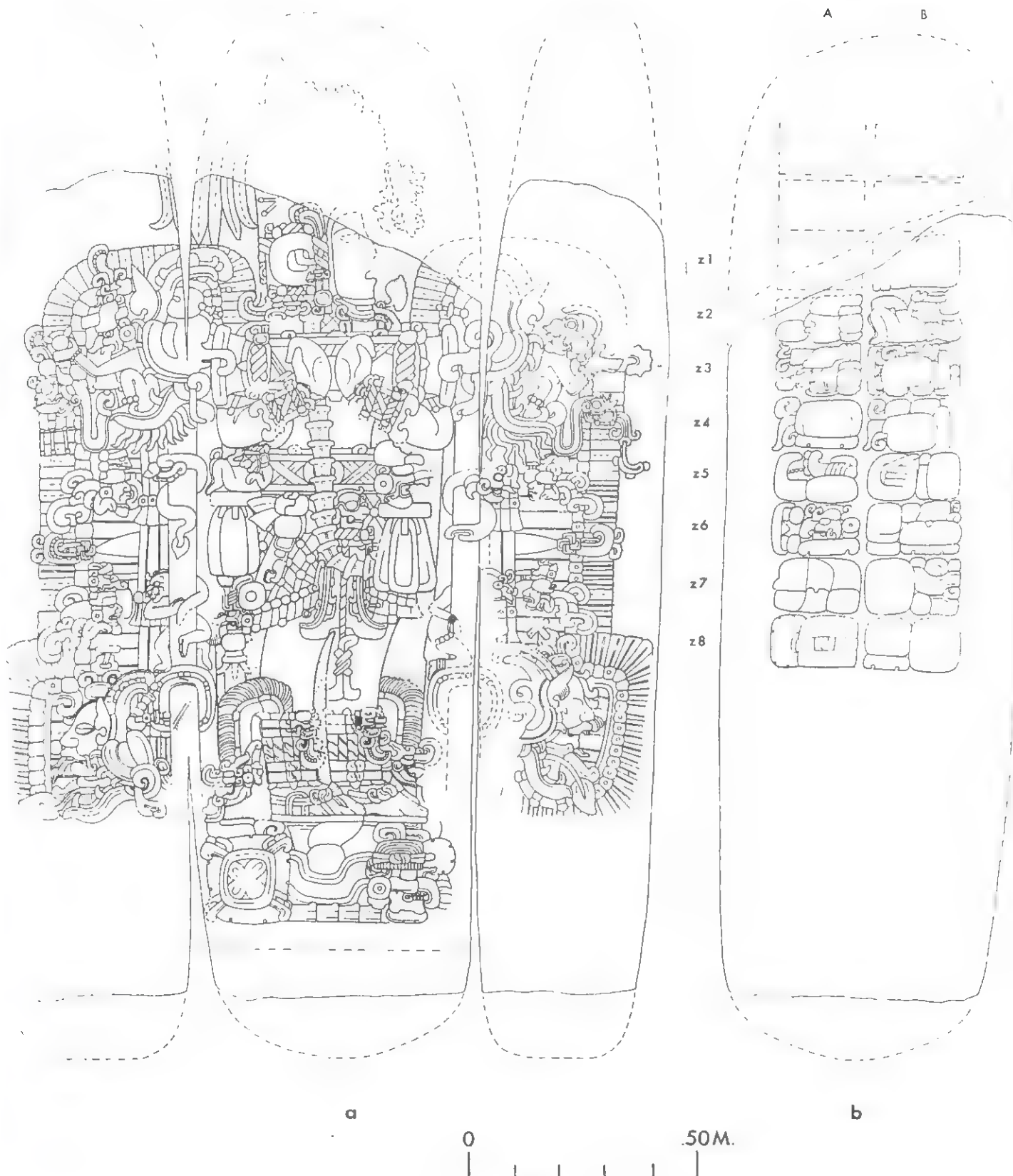


TIKAL: VASE from (PROBLEMATIC) DEPOSIT #150



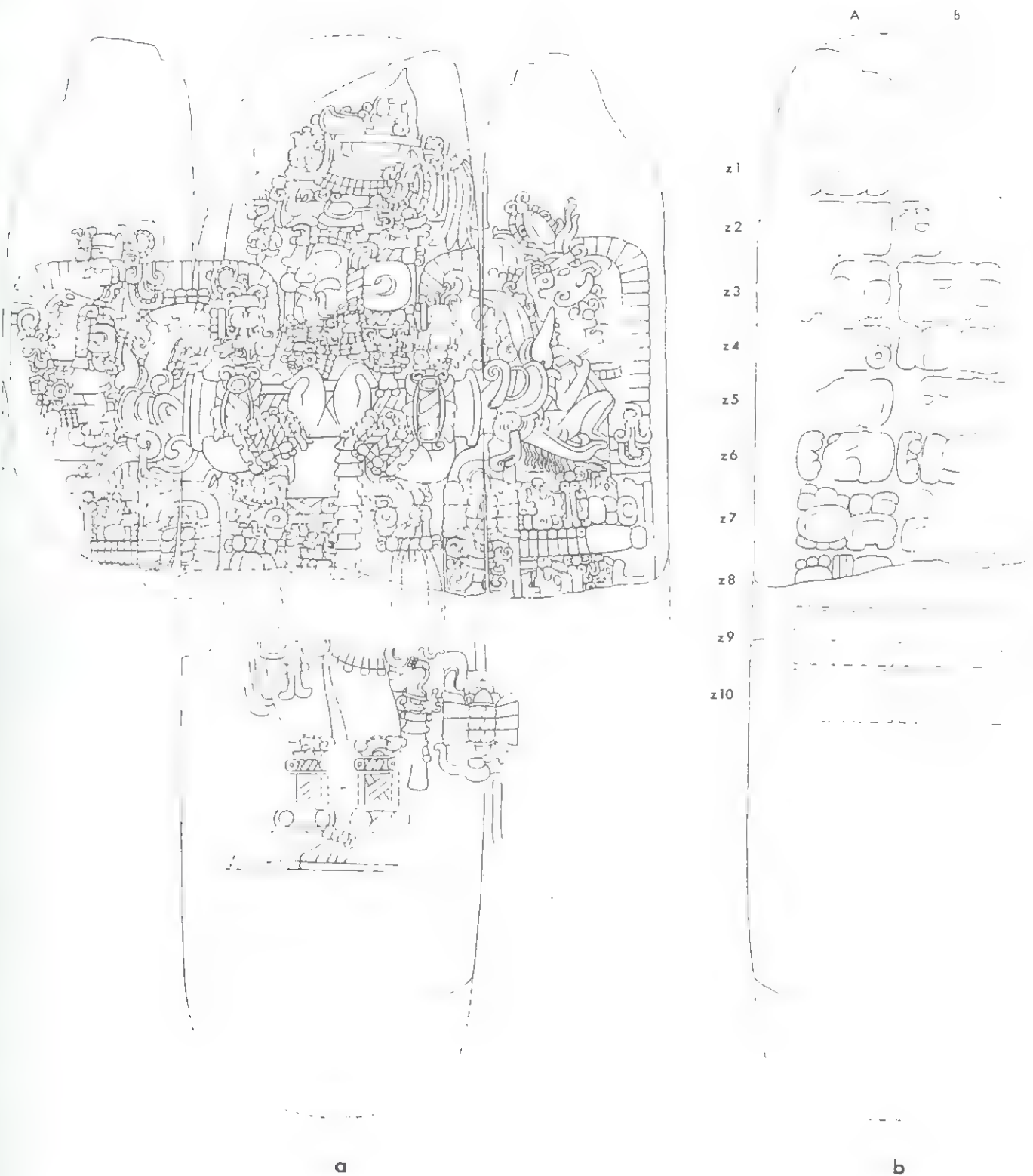
TIKAL ST. 36

FIGURE 1



Tikal St. 1: a. left side, front, and right side; b. back.
See photos, Fig. 83a,b.

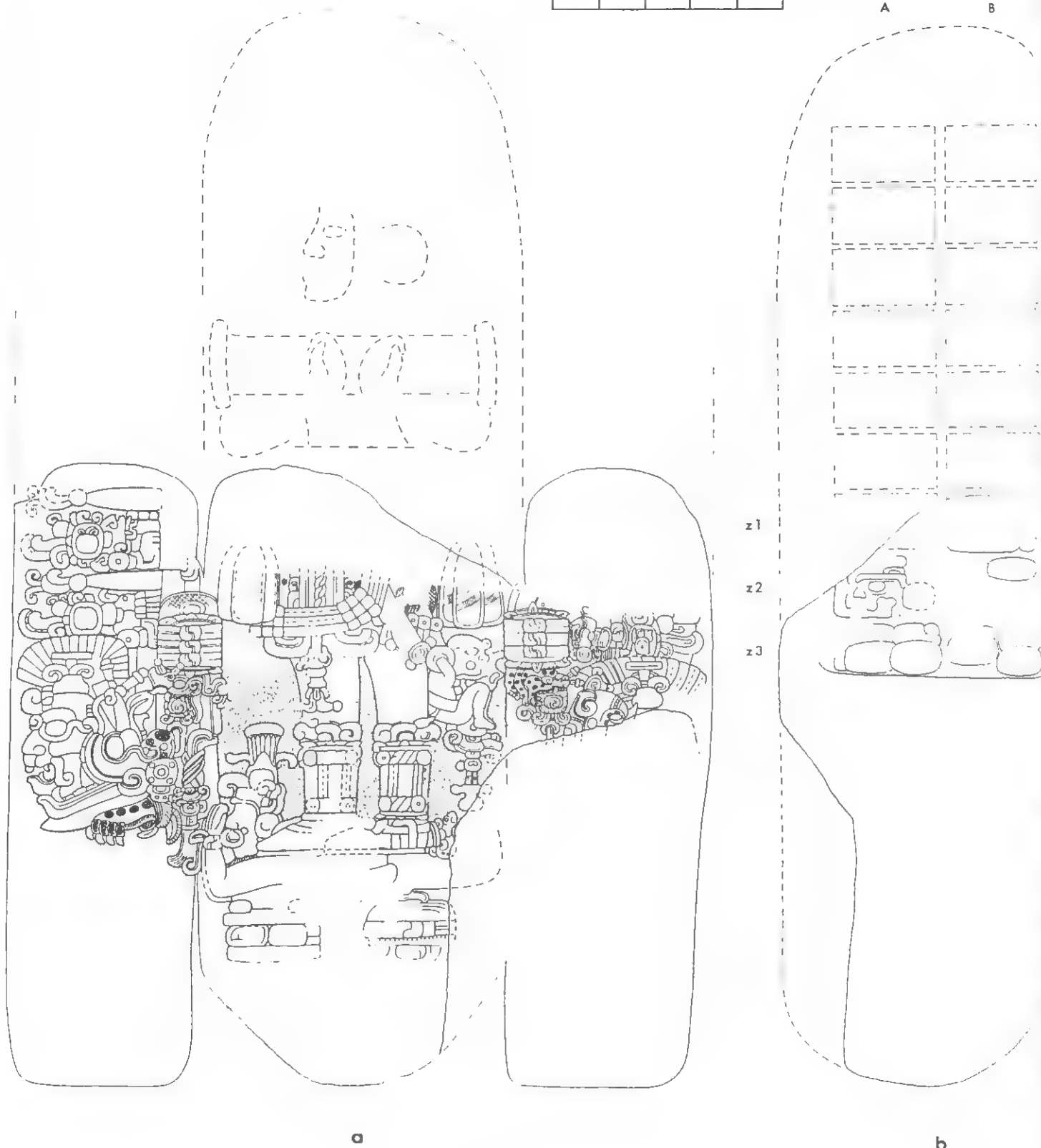
FIGURE 2



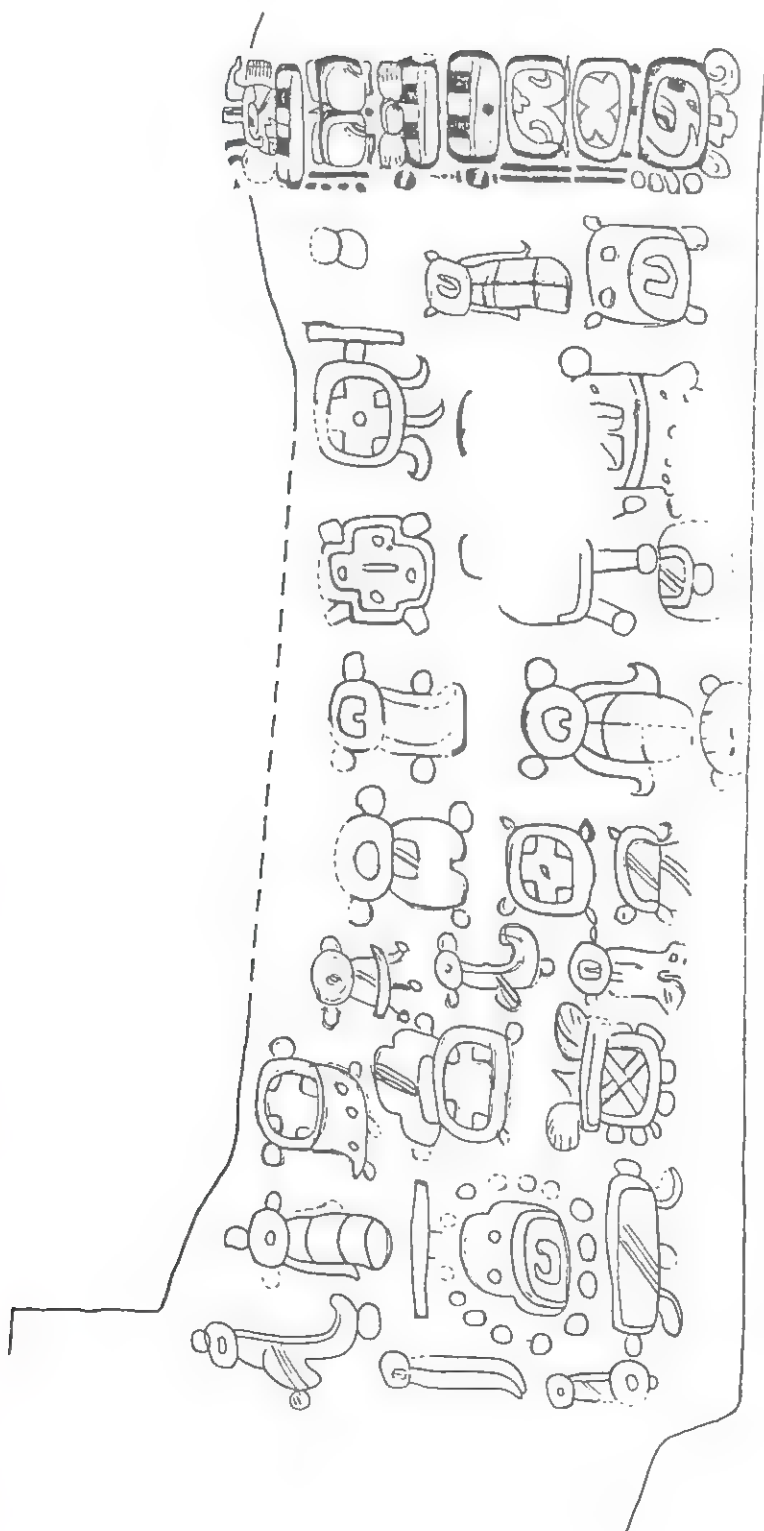
Tikal St. 2: a. left side, front, and right side; b. back.
See photos, Fig. 84a,b.

0 50M.

A B

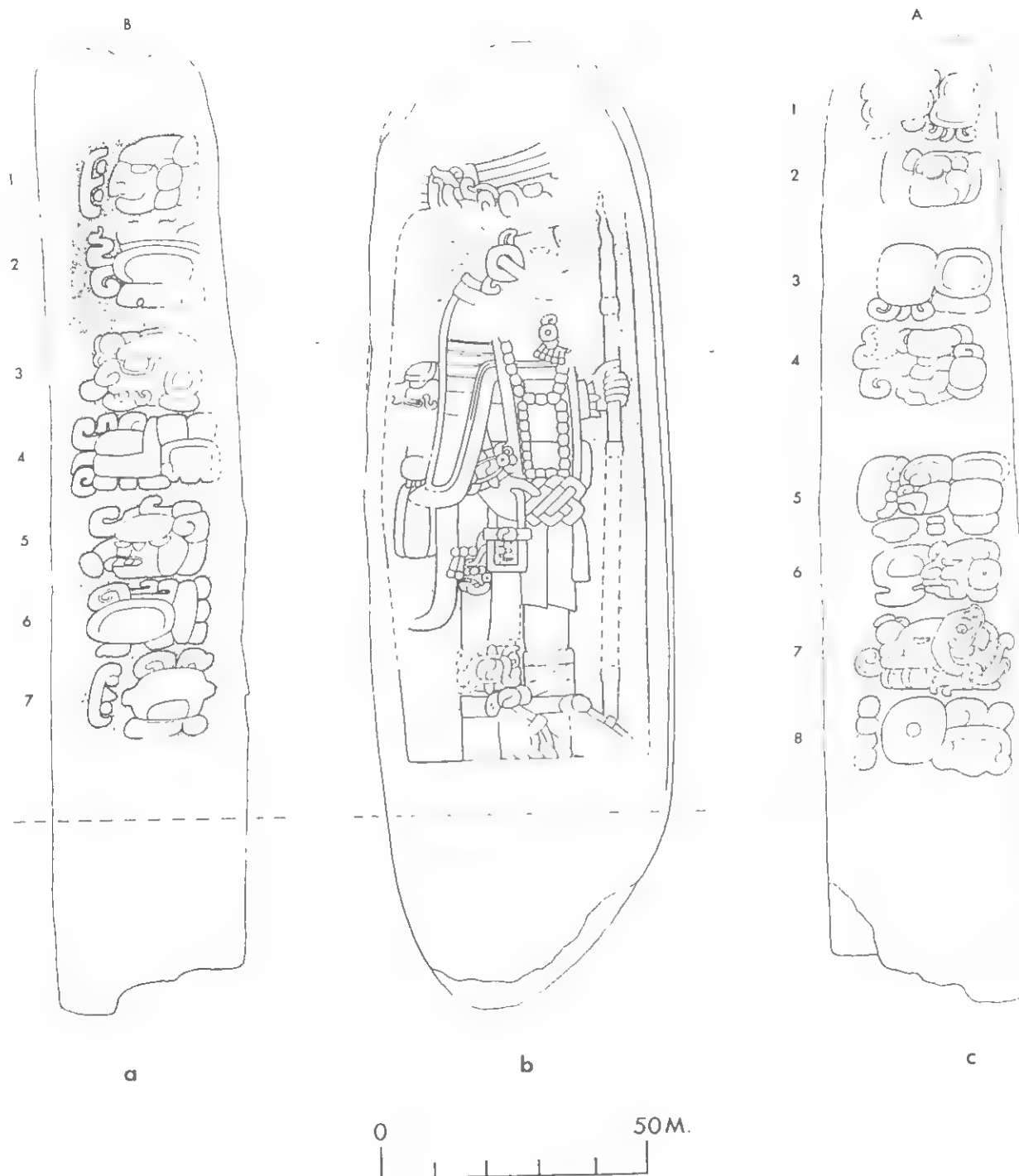


Tikal St. 28: a. left side, front, and right side; b. back.
See photos, Fig. 102d,e.

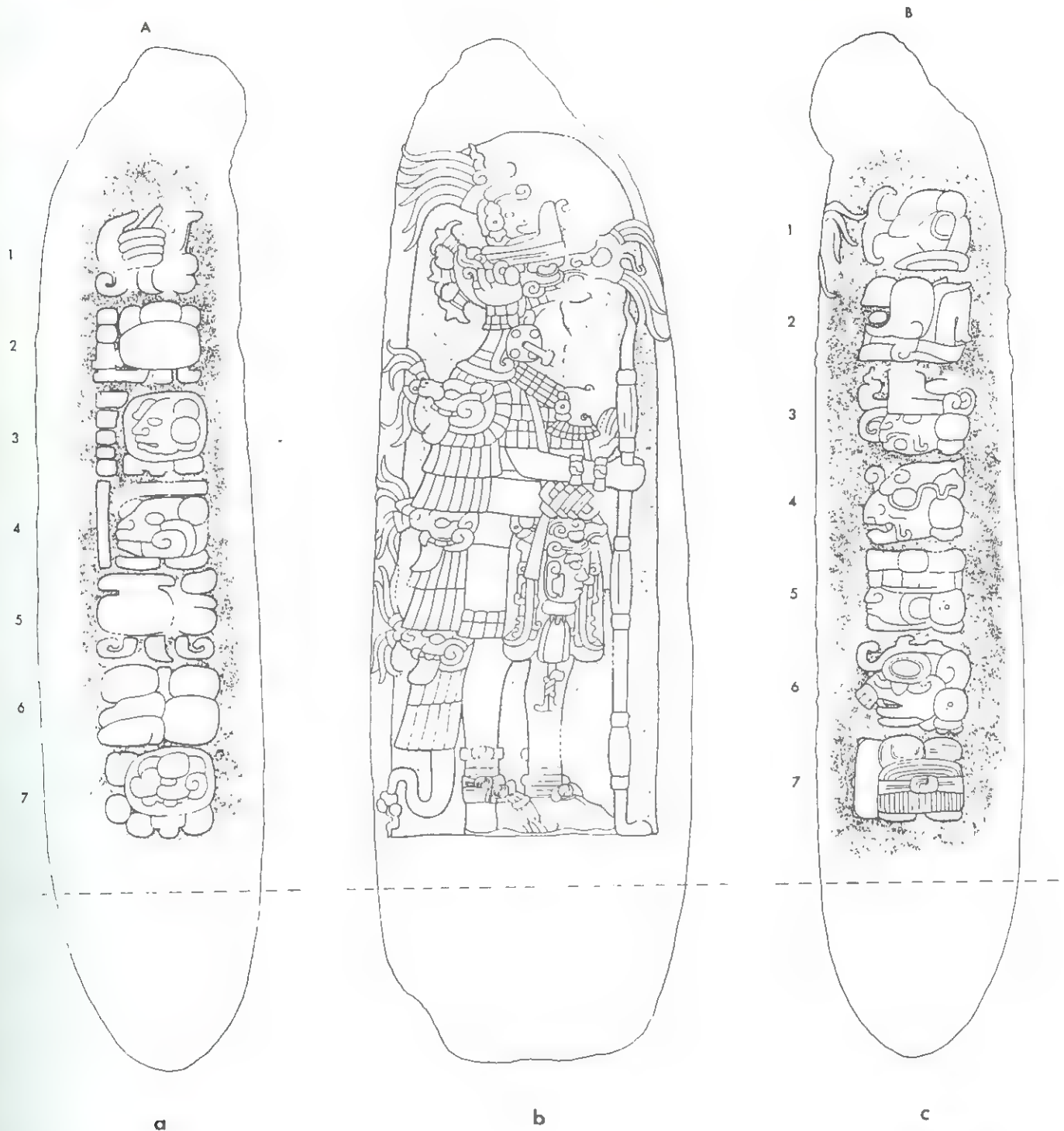


A B C D E F G H I J

TIKAL: Burial 148



Tikal St. 13: a. left side; b. front; c. right side.
See photo, Fig. 92a.



9.3.0.0.0 2 Ahau
 - 5.5
 9.2.19.12.15

0 50M.

9.2.0.0.0 4 Ahau
 9.5
 9.1.19.18.5 1 Men
 13 Ch'en

Tikal St. 9: a. left side; b. front; c. right side.
 See photos, Fig. 88a-d.

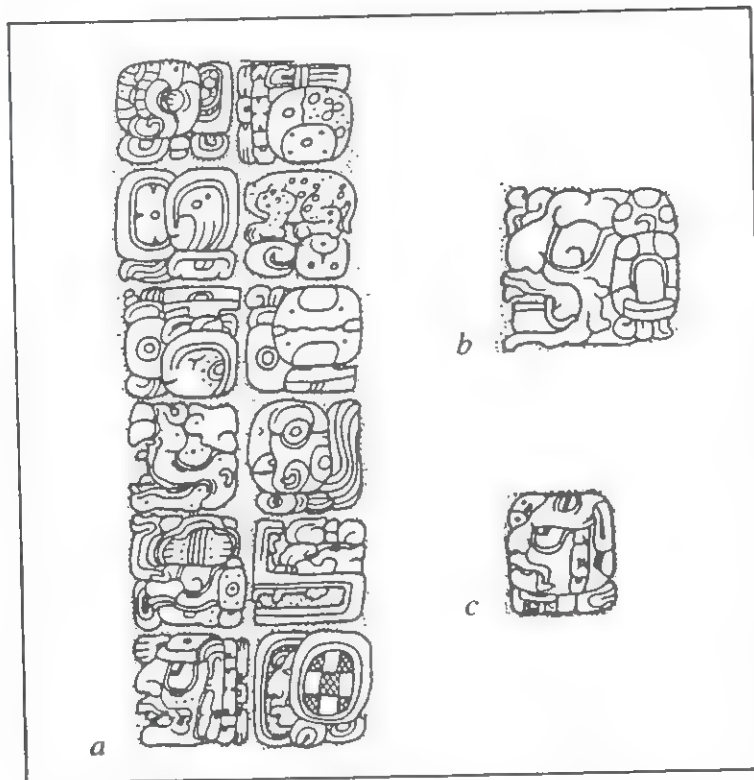
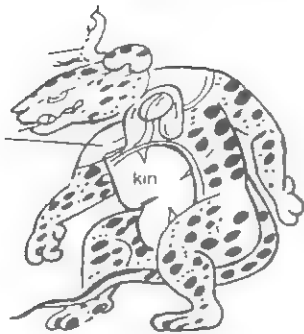
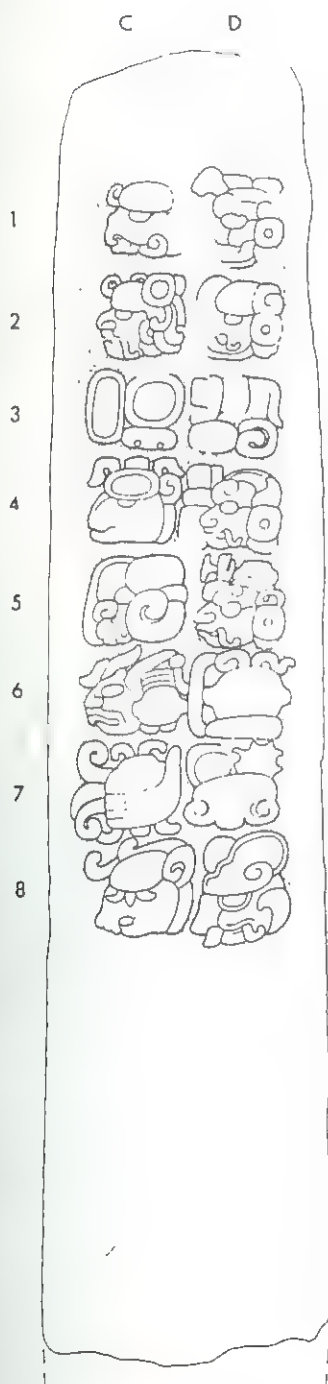
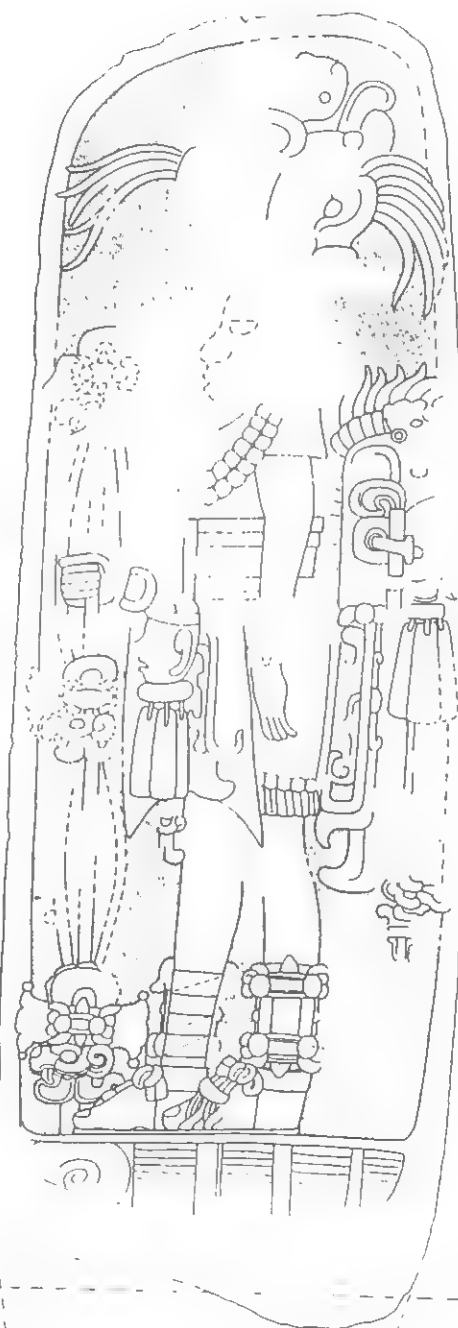


Fig. 6 Palenque: (a) birth phrase for GIII, Tablet of the Sun; (b) GIII, Tablet of the Foliated Cross; (c) GIII, middle panel, Temple of the Inscriptions.

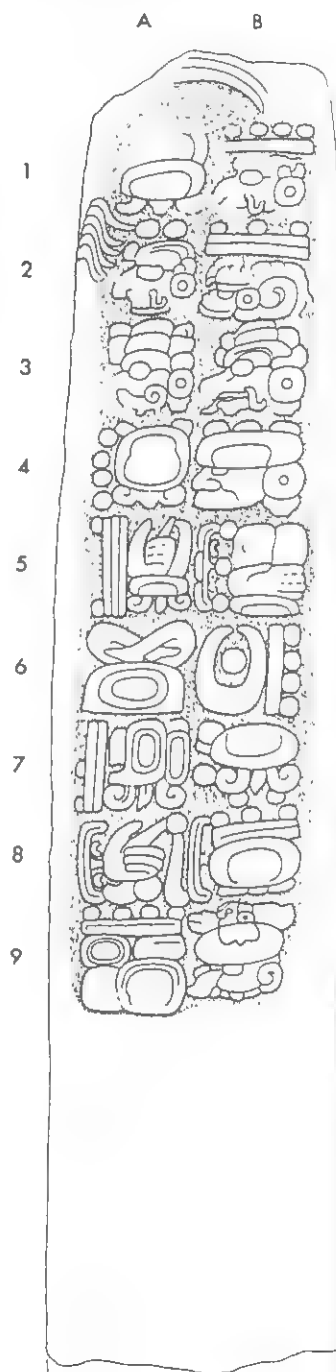
9.2.13.0.0
4 Ahau 13 Kayab



Left



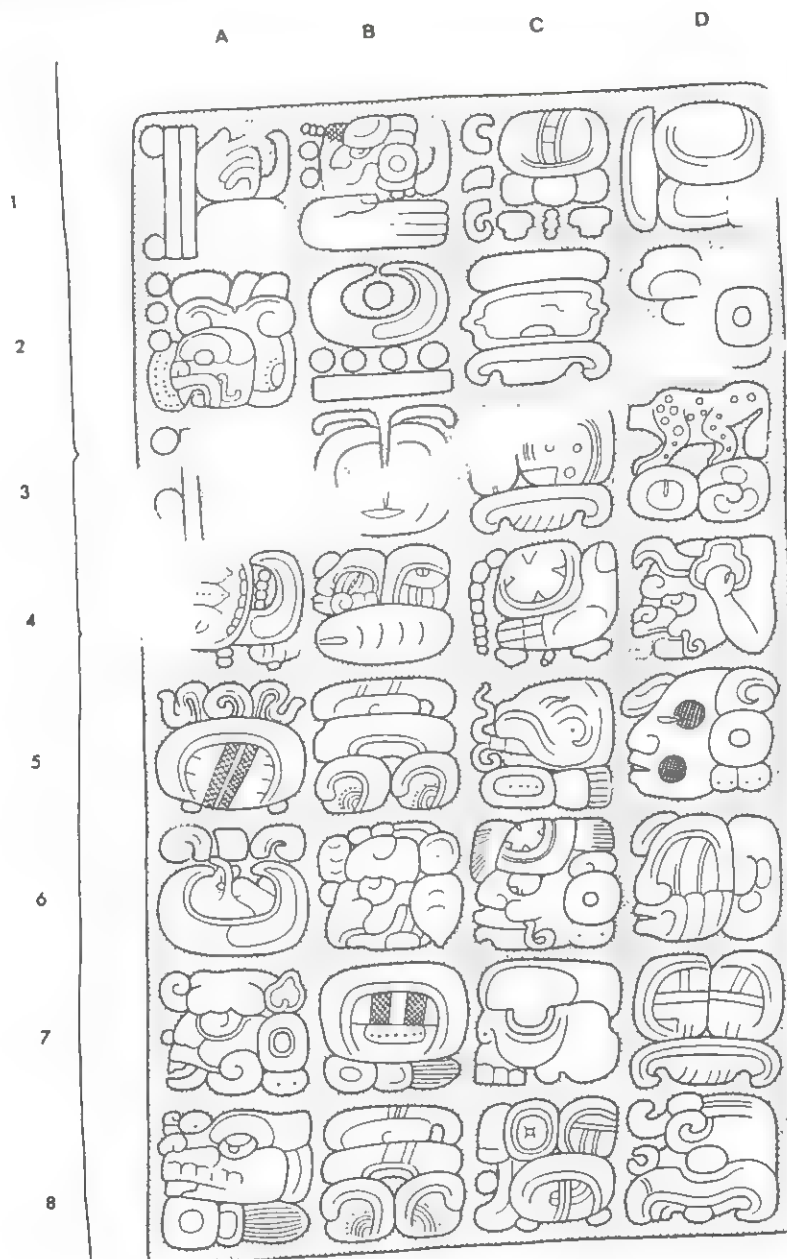
FRONT



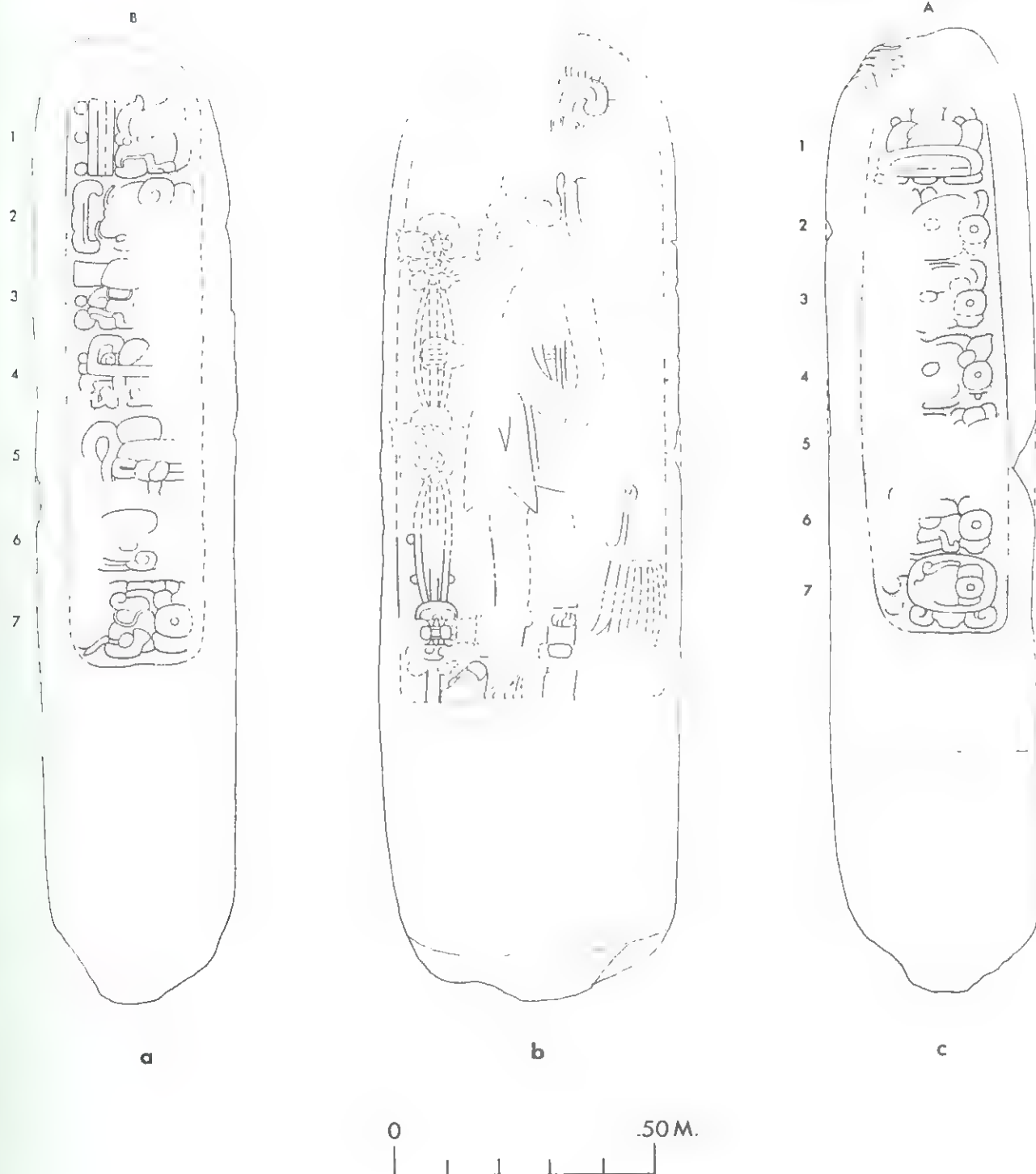
Right

TIKAL ST. 3

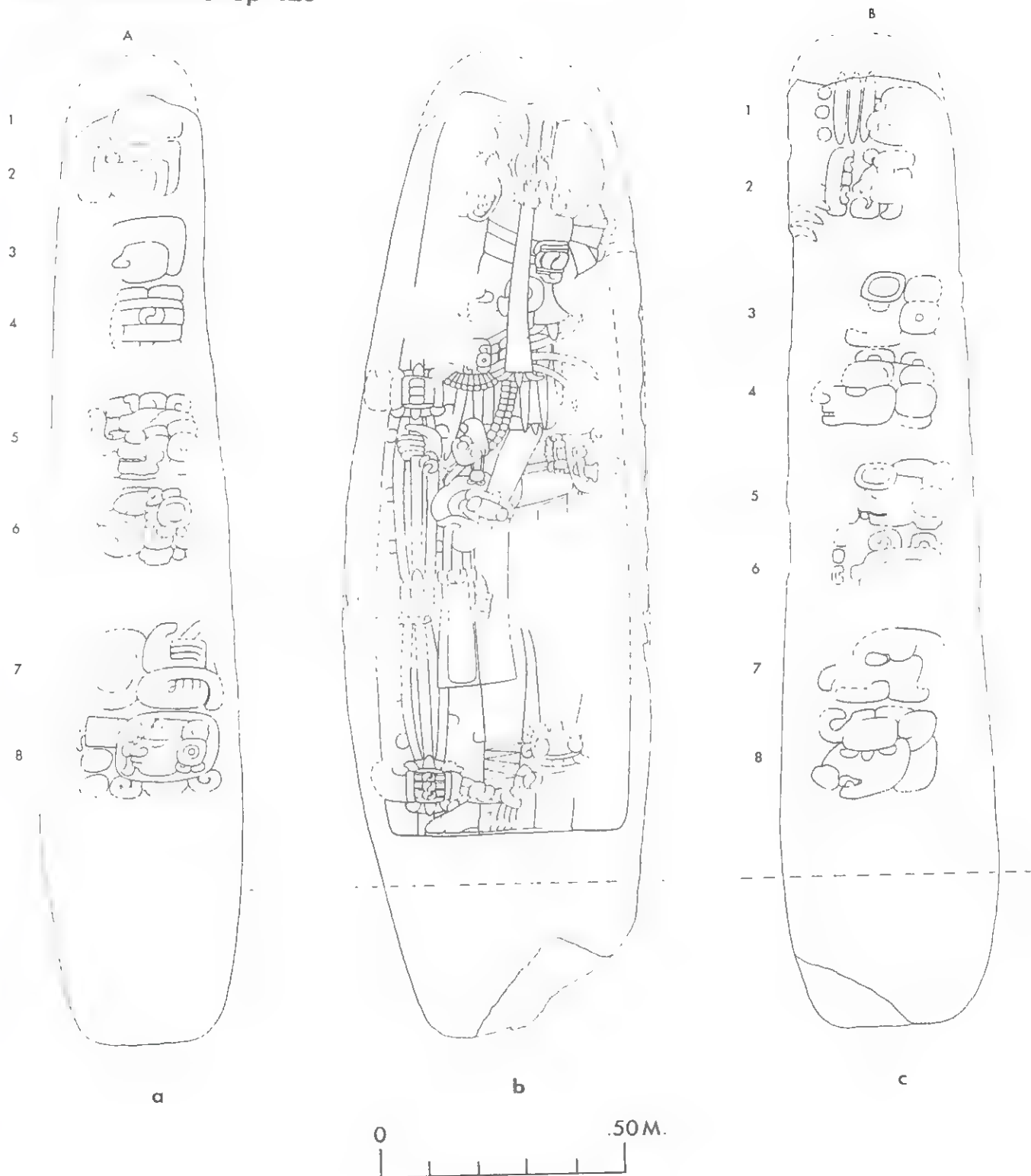
Tikal: 1990 Workshop 118



9.3.0.0.0.
2 Ahau 18 Muan

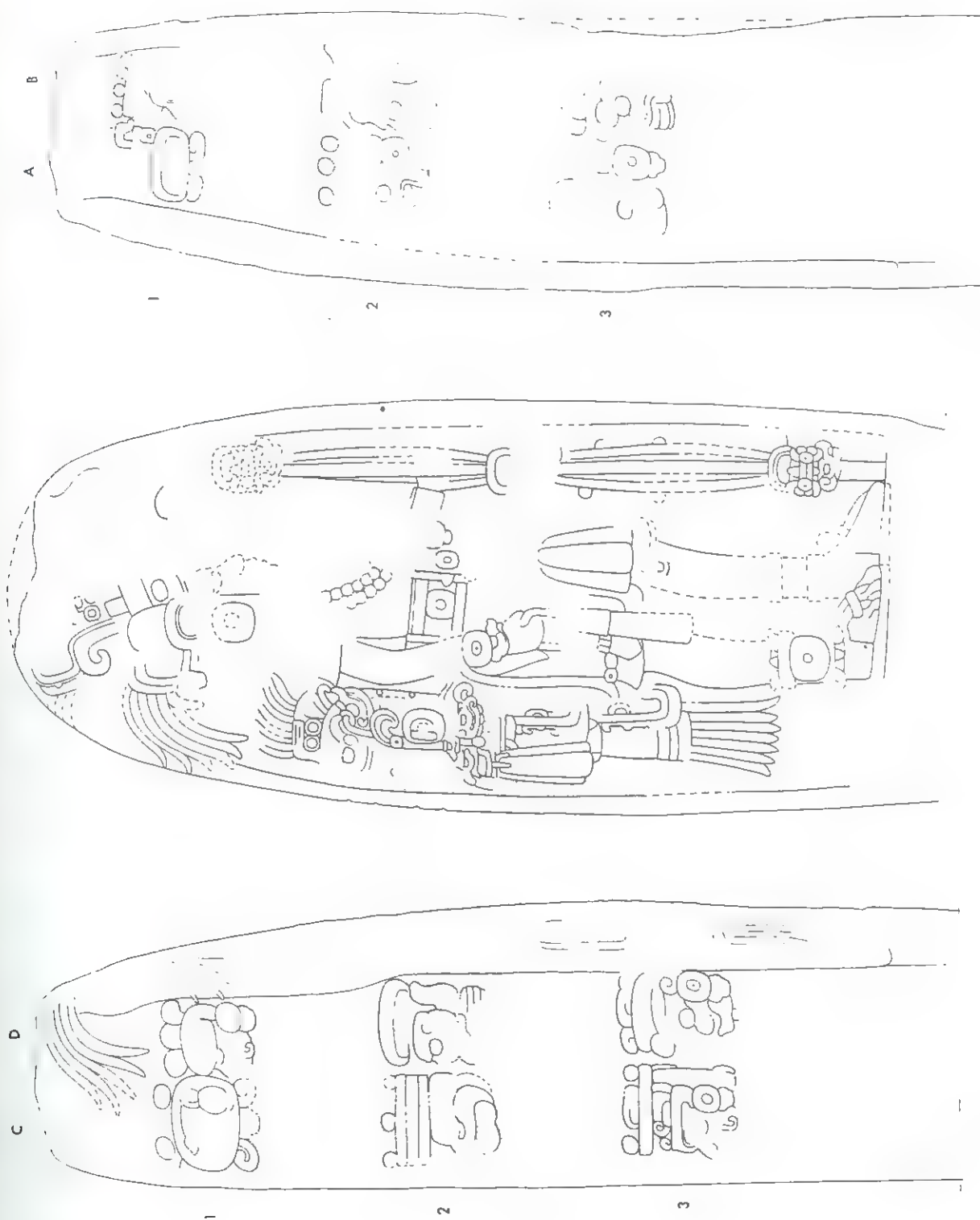


Tikal St. 15: a. left side; b. front; c. right side.
See photos, Fig. 92b-d.



Tikal St. 7: a. left side; b. front; c. right side.
See photos, Fig. 87a-c.

9. 3. 0. 0. 0 2 Ahau 18 Muan

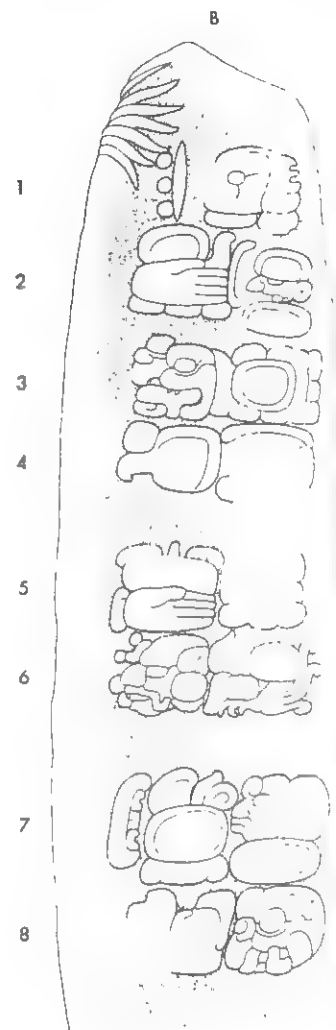
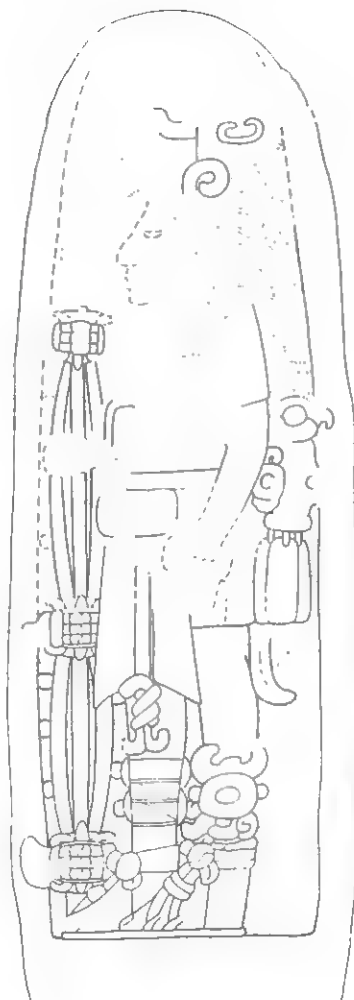
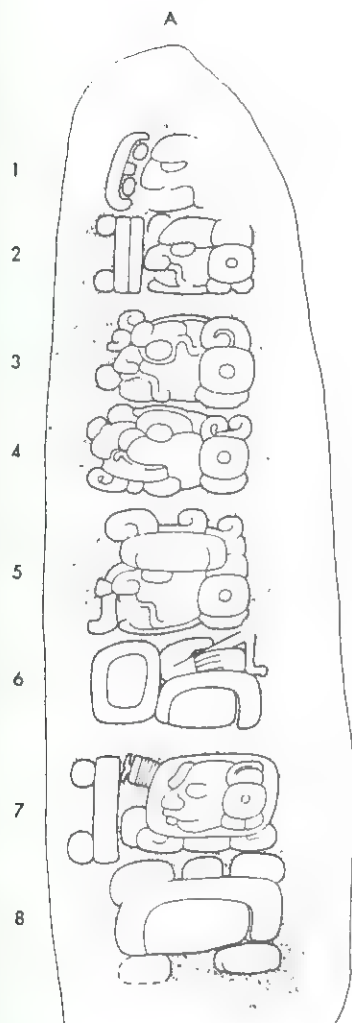


ST 27
9.3.0.0.0 2 Ahau 18 Muan

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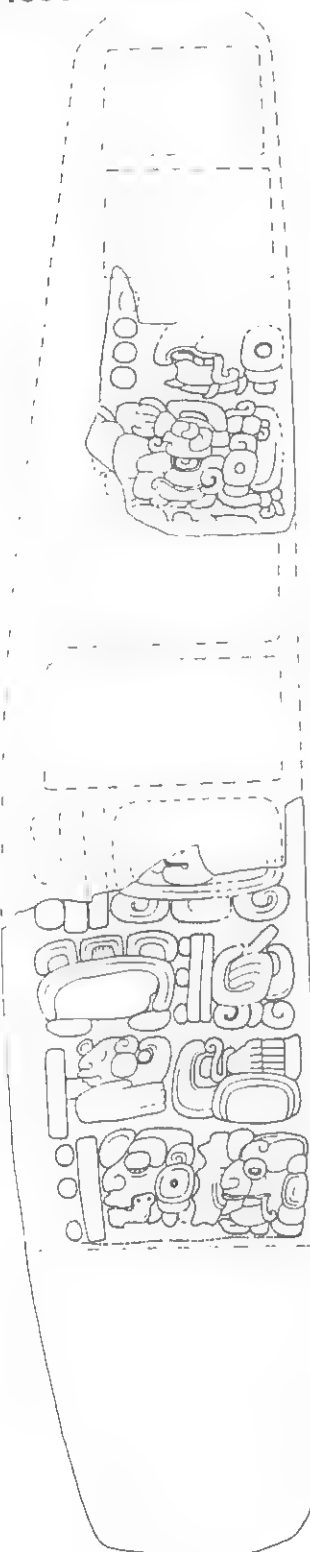


ST. 8

9.3.2.0.0 7 Ahau 8 Muan



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a

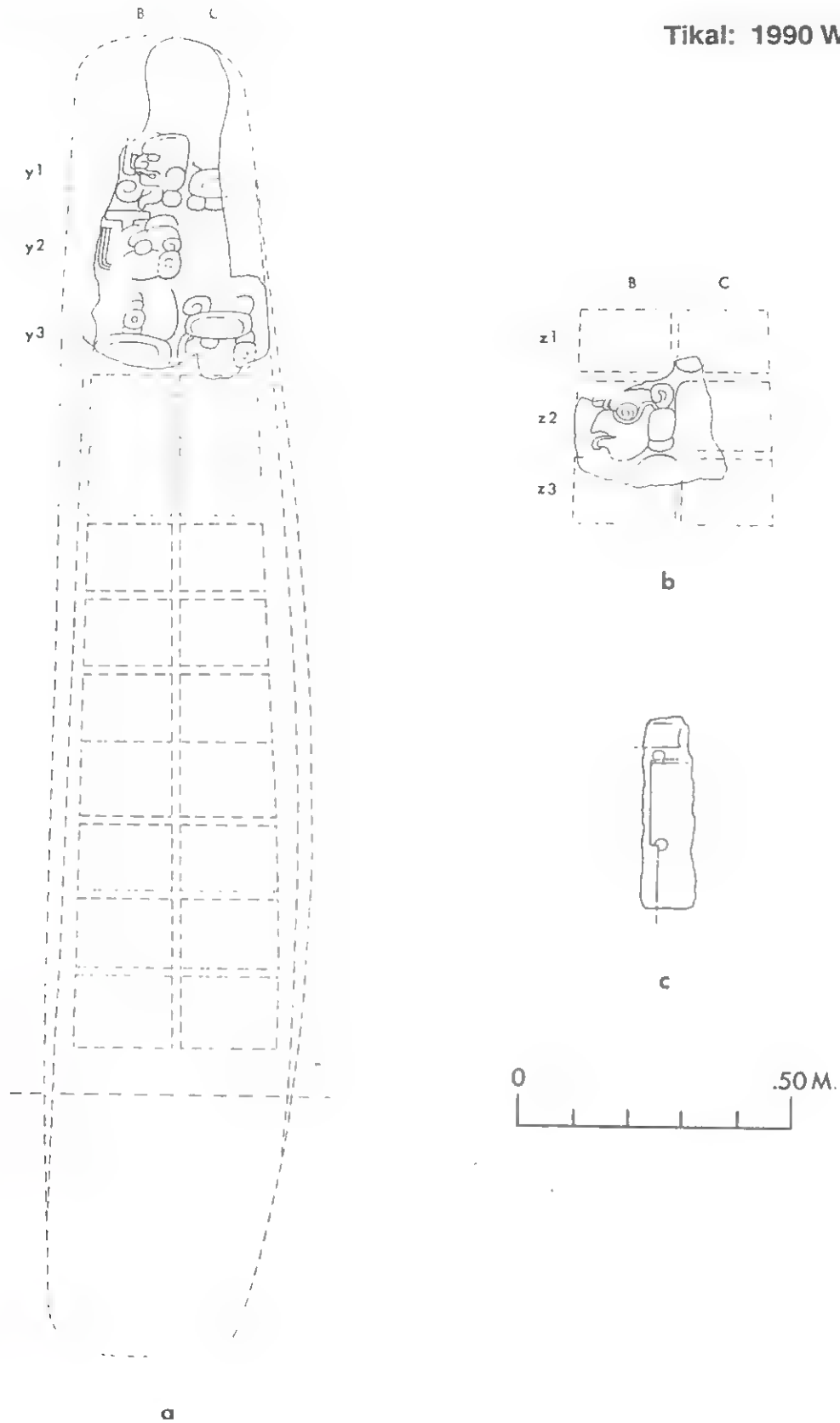
x1
x2



b

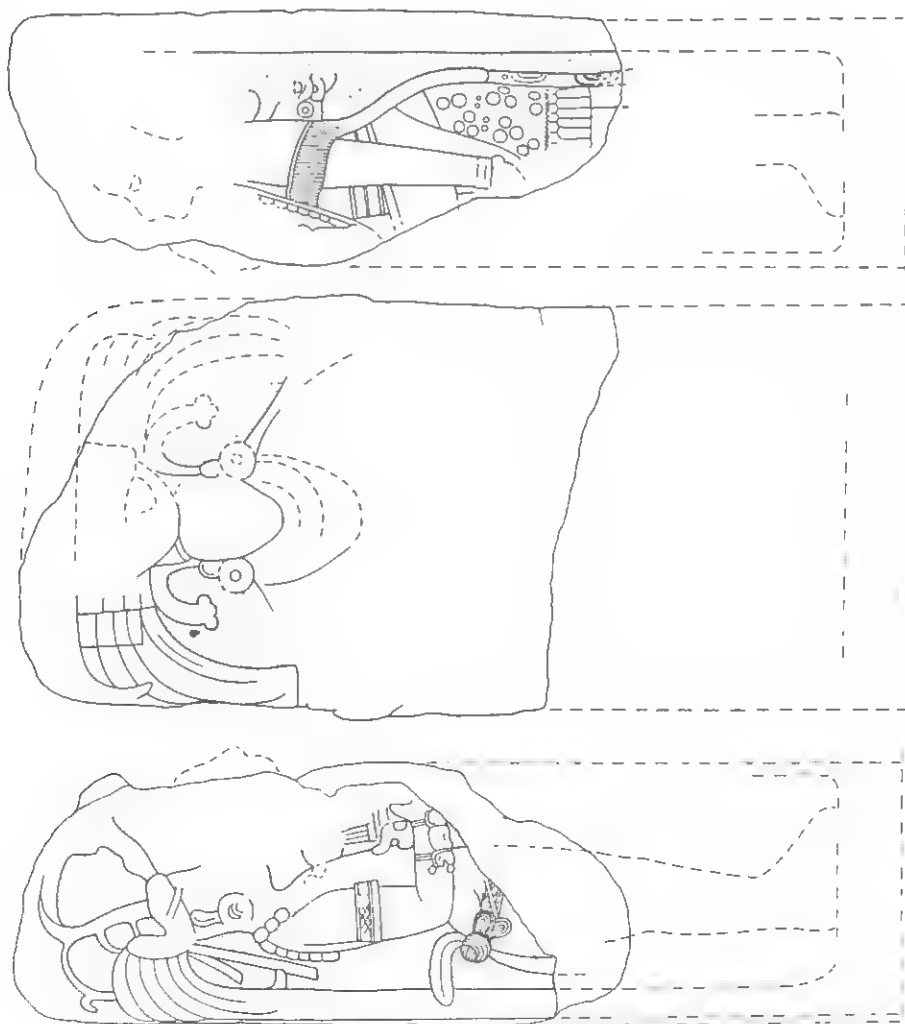
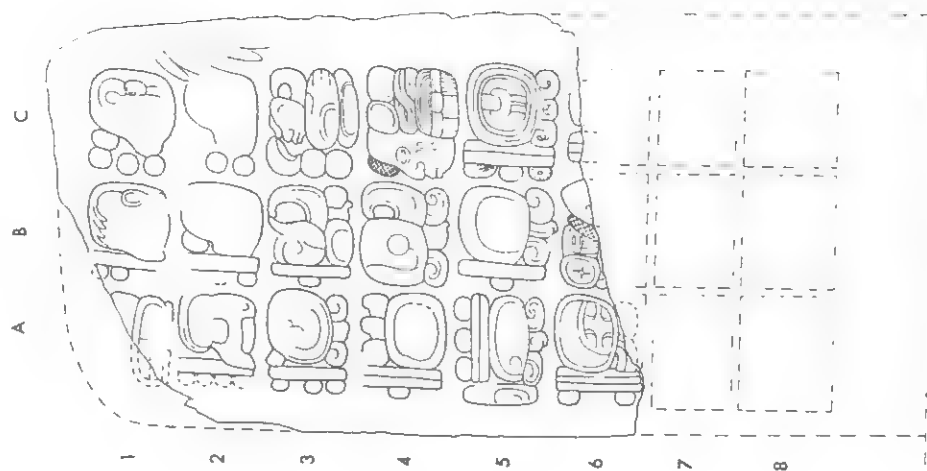
Tikal St. 6: a. left side; b. front.
See photos, Fig. 86b,c.

9.4.0.0.0



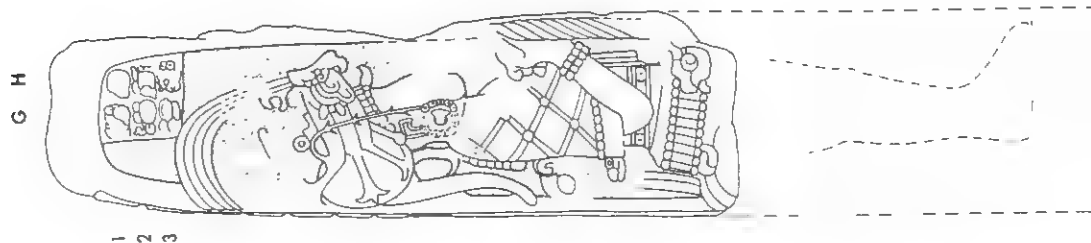
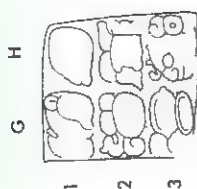
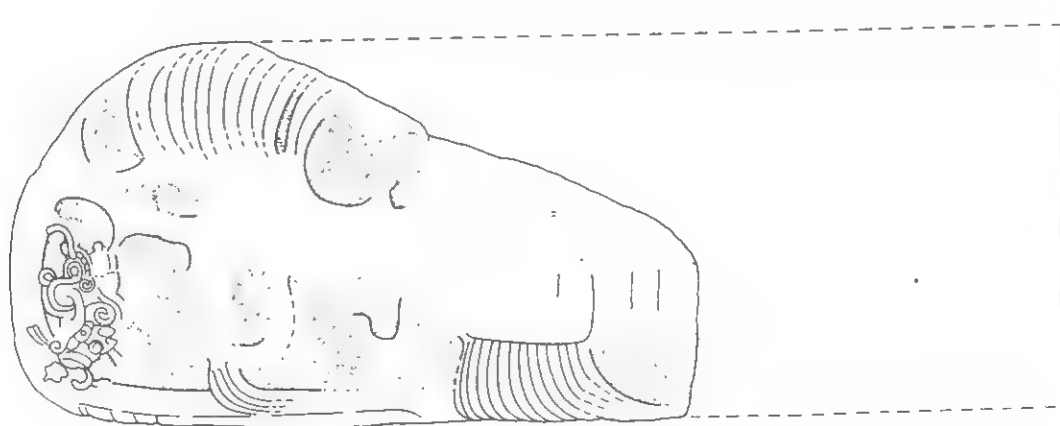
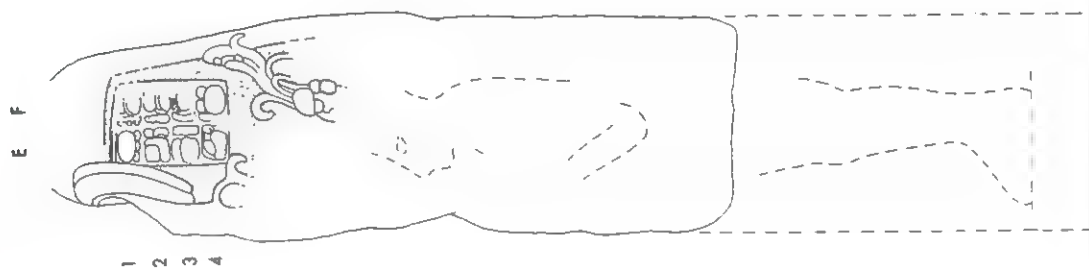
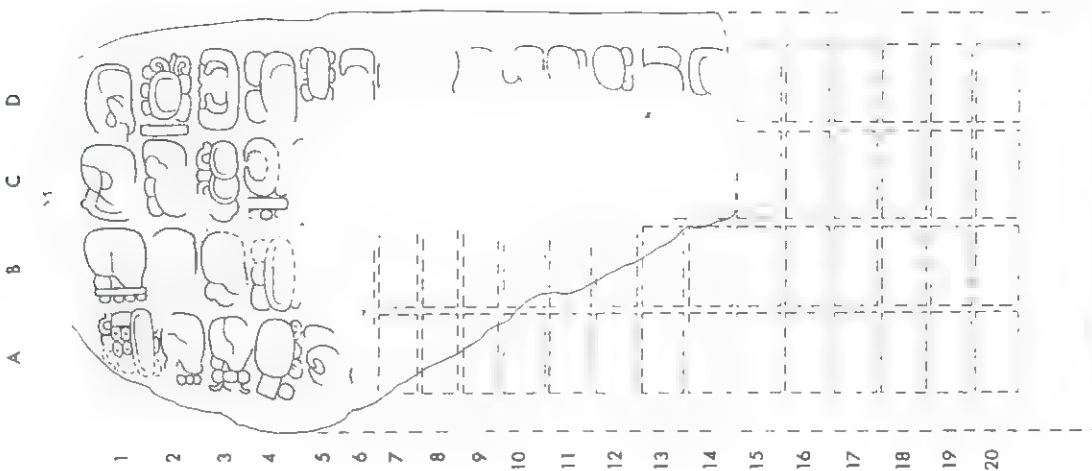
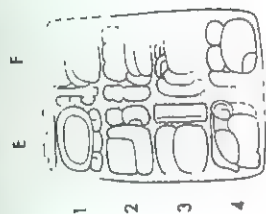
Tikal St. 6: a. right side; b. fragment from right side. c. fragment reworked as a mano.
See photo, Fig. 86d.

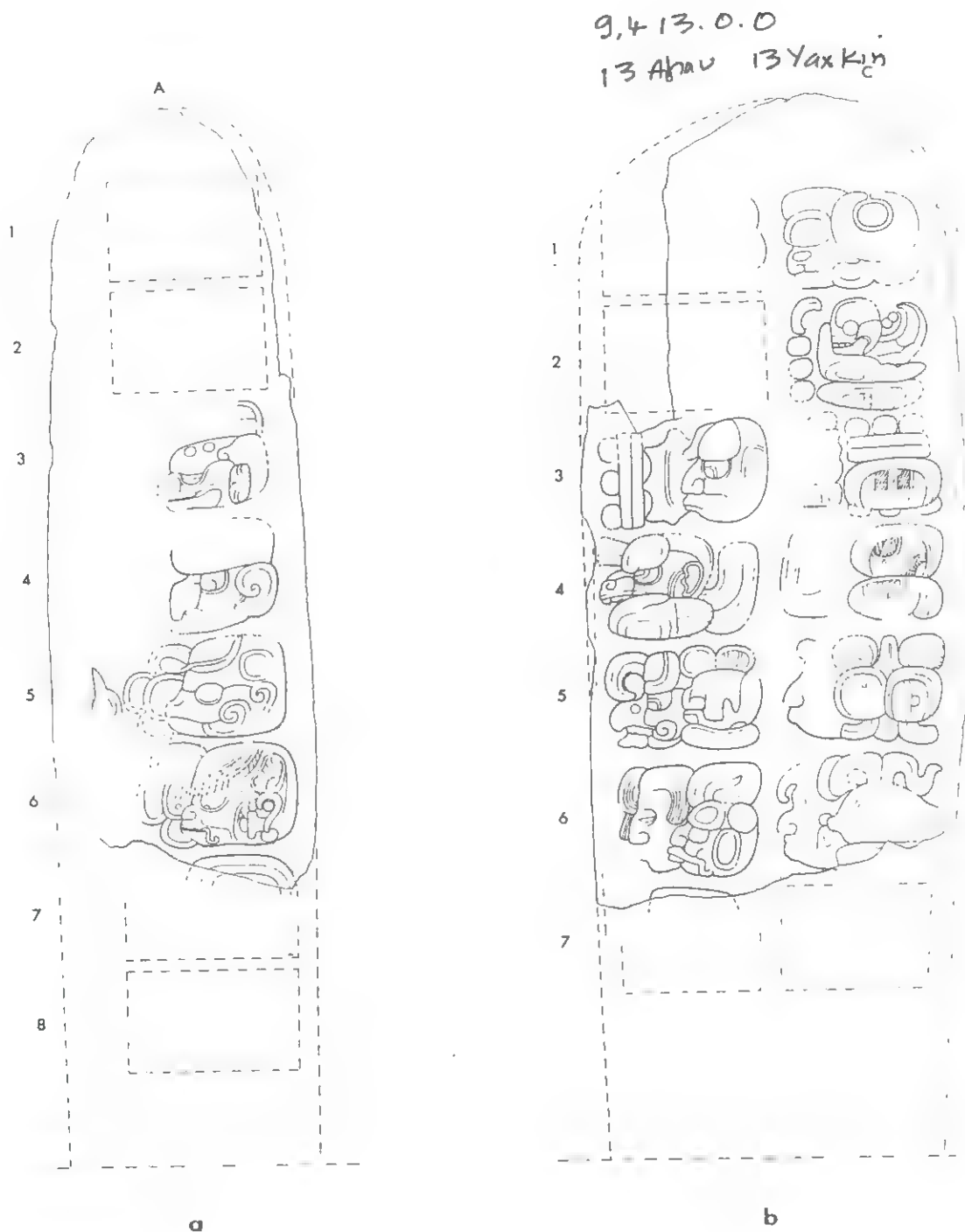
9.3.9.13. 3 8AKbal 11 Mol
6.13.1
 9.3.16. 3.4 11 Kan 17 Pop



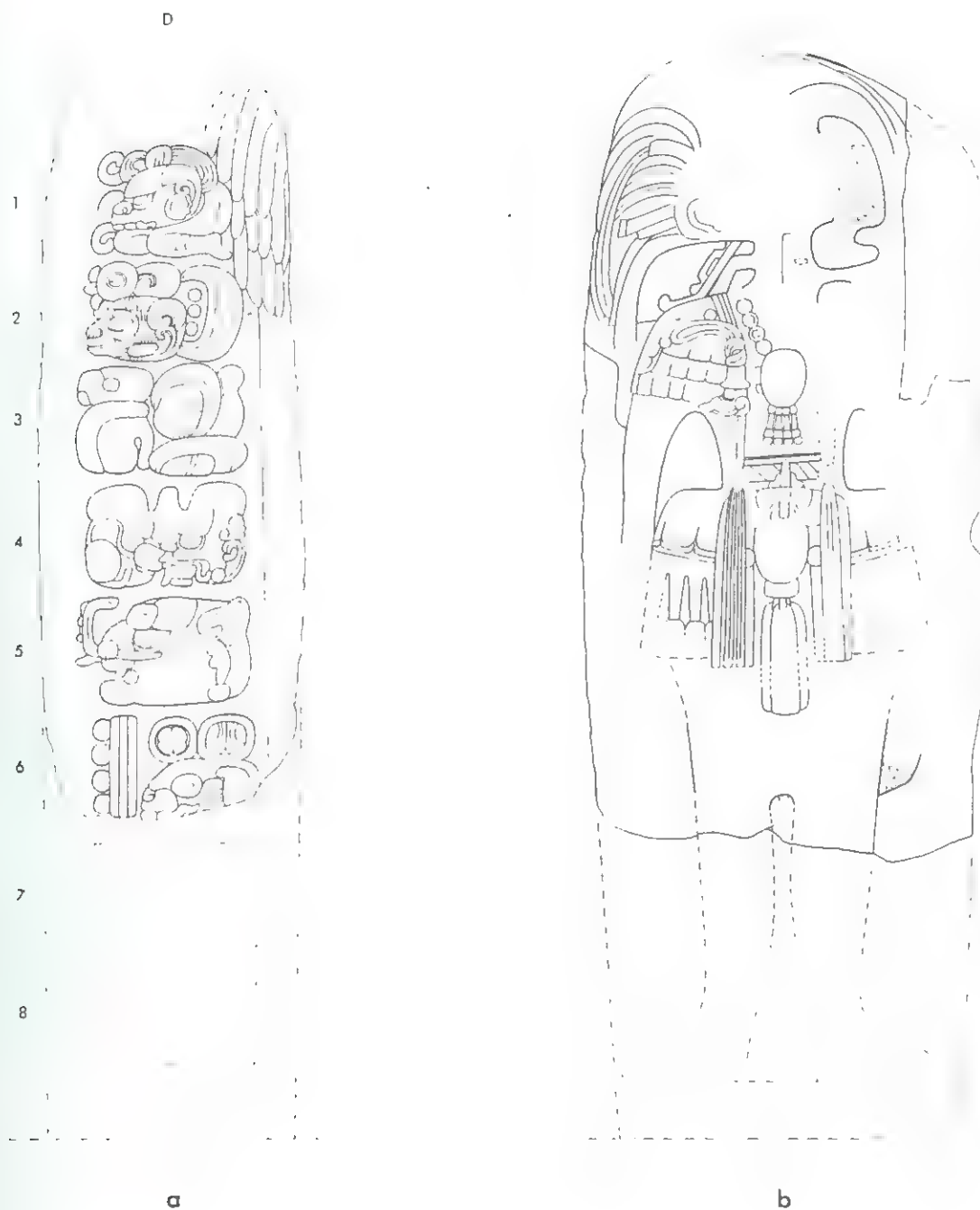
ST. 23

9.4.3.0.D.0
1 Ahau 3 Yax





Tikal St. 12: a. right side; b. back.
See photos, Fig. 91a,b.



Tikal St. 12: a. left side; b. front.
See photos, Fig. 91c,d.

C D

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9.5.4.2.8,
4 Lamät 6 Vaxkin

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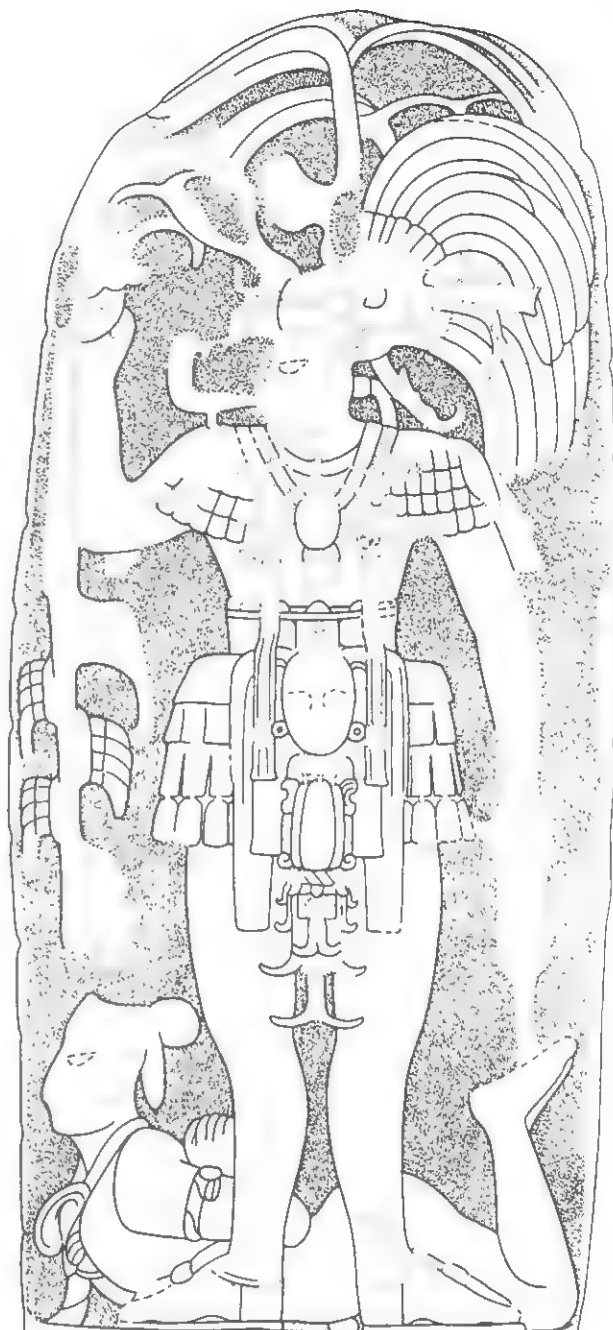
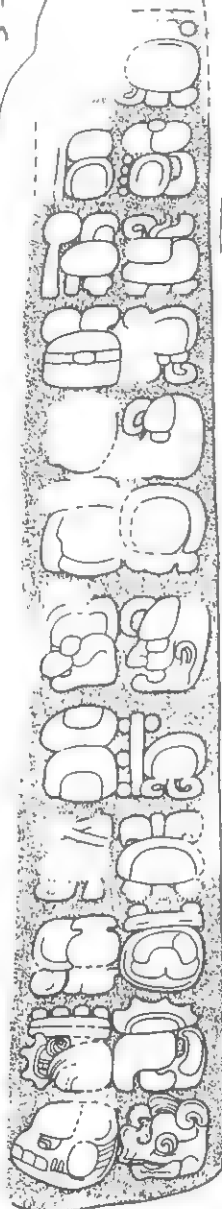
8

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9.5.4.5.16
7 Cib 14 Yax

11

12



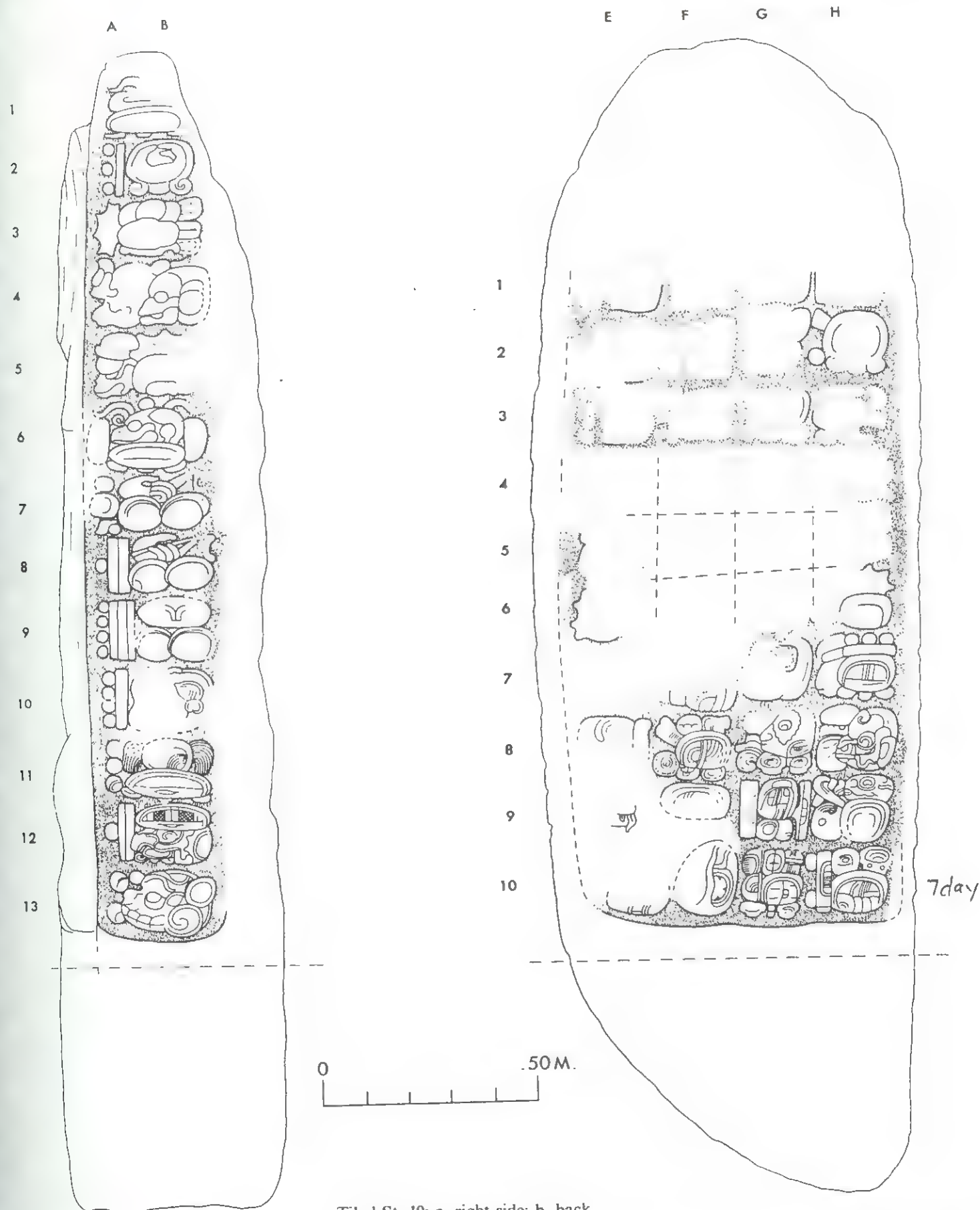
□ Tikal St. 10: a. left side; b. front.
See photos, Fig. 89a,c,d.

b

0

50M





Tikal St. 10: a. right side; b. back.
See photo, Fig. 89h.

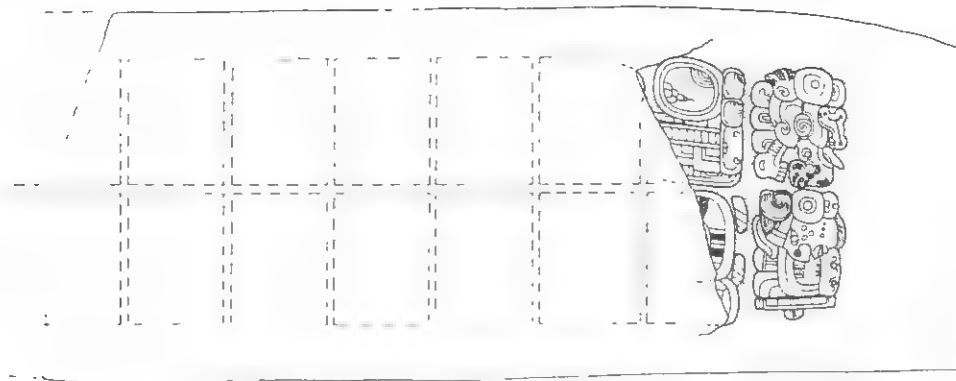
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yB

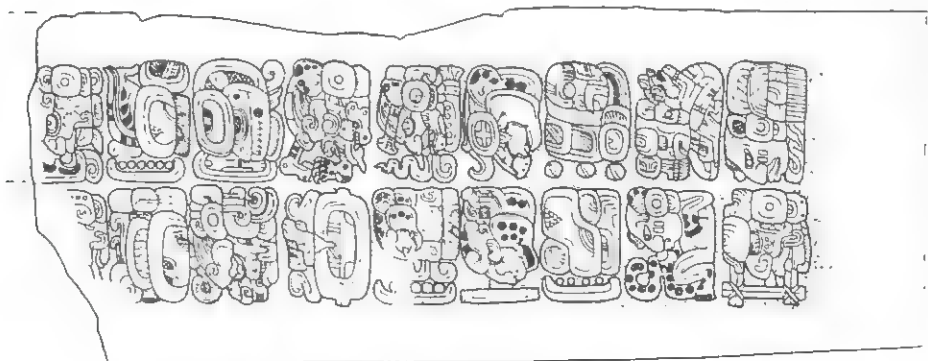
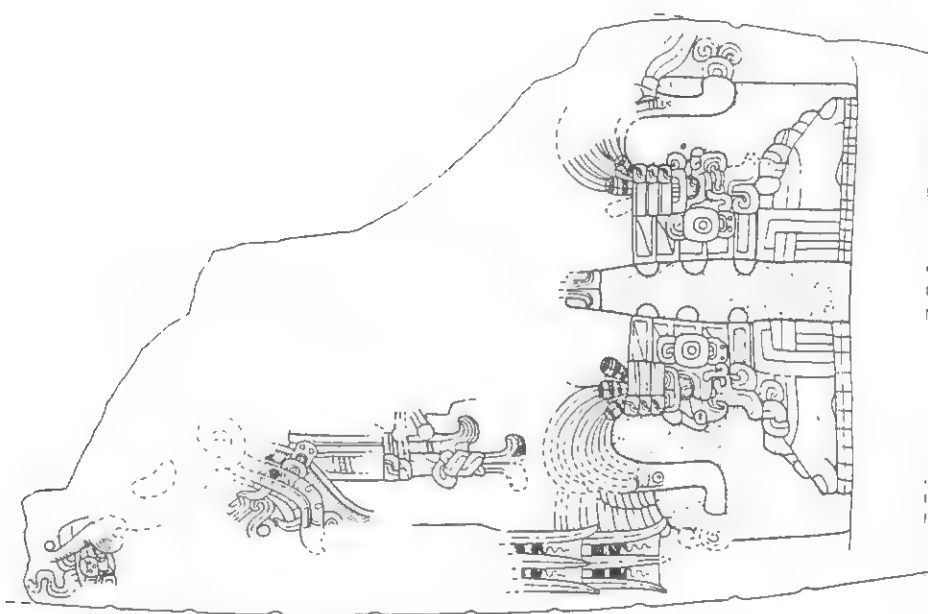
yA



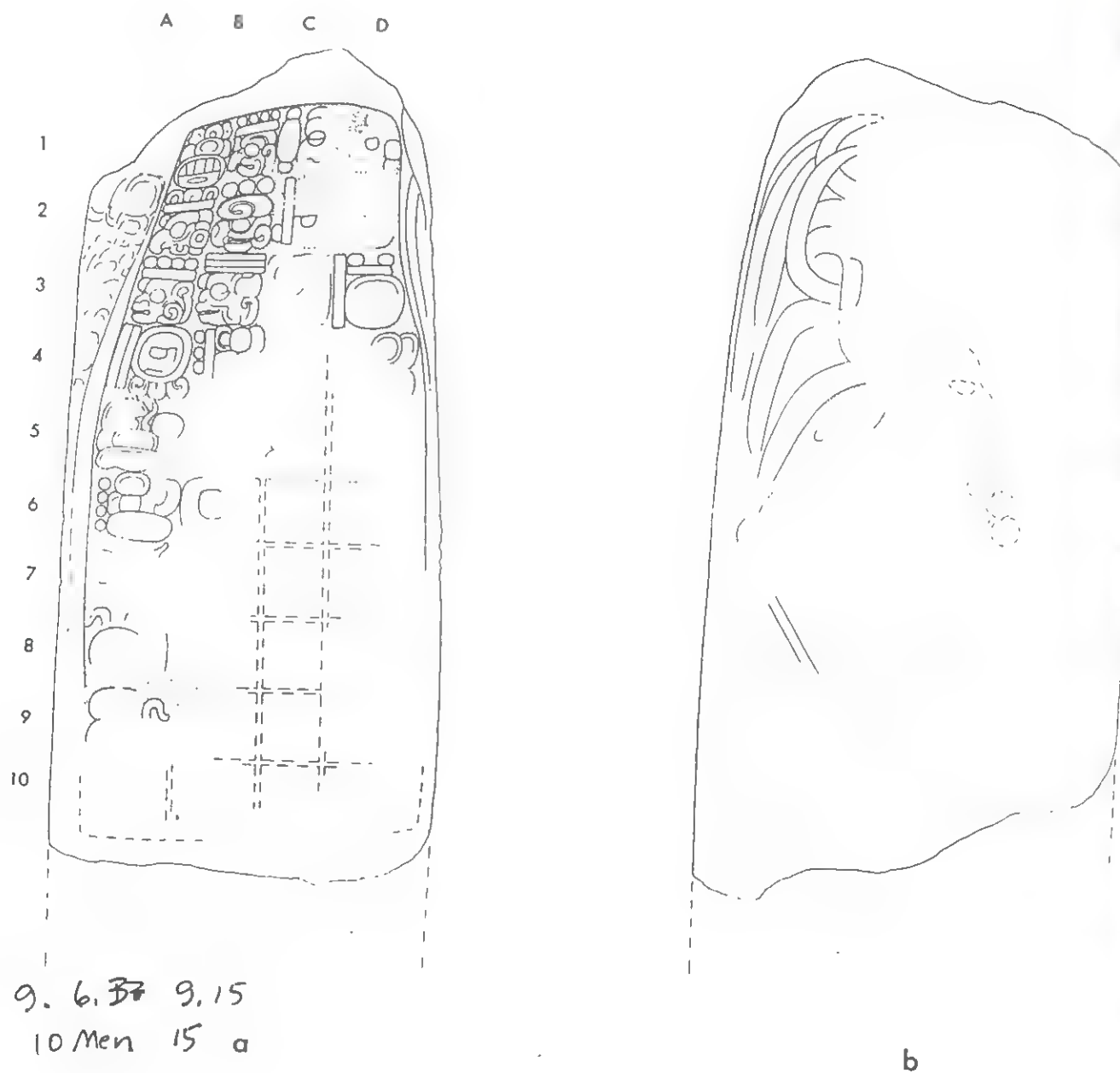
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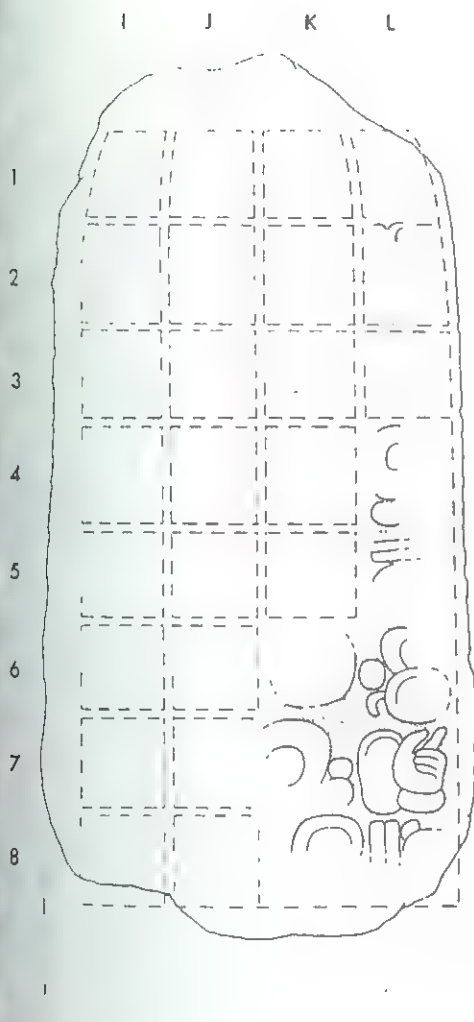
3



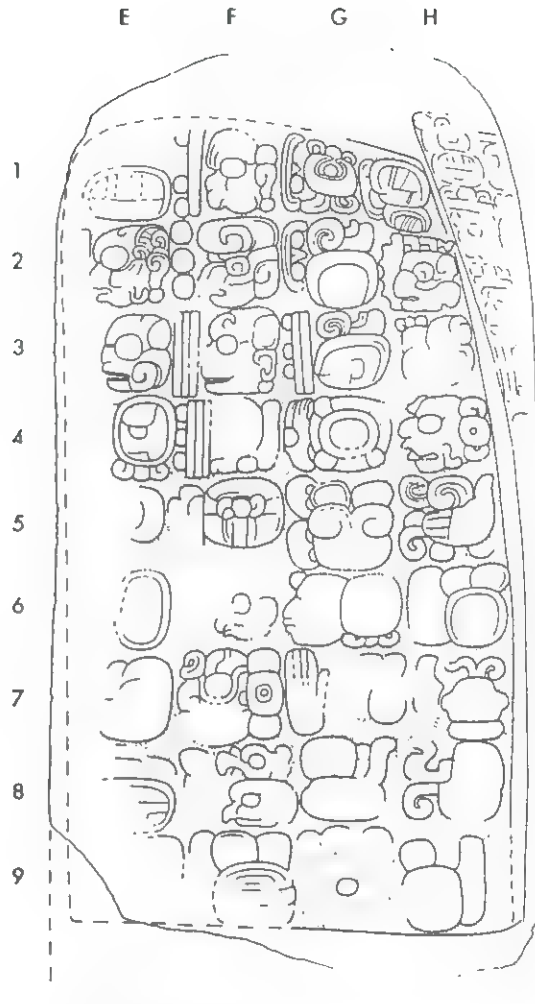
ST. 26



Tikal St. 17: a. left side; b. front.
See photos, Fig. 95a,c.



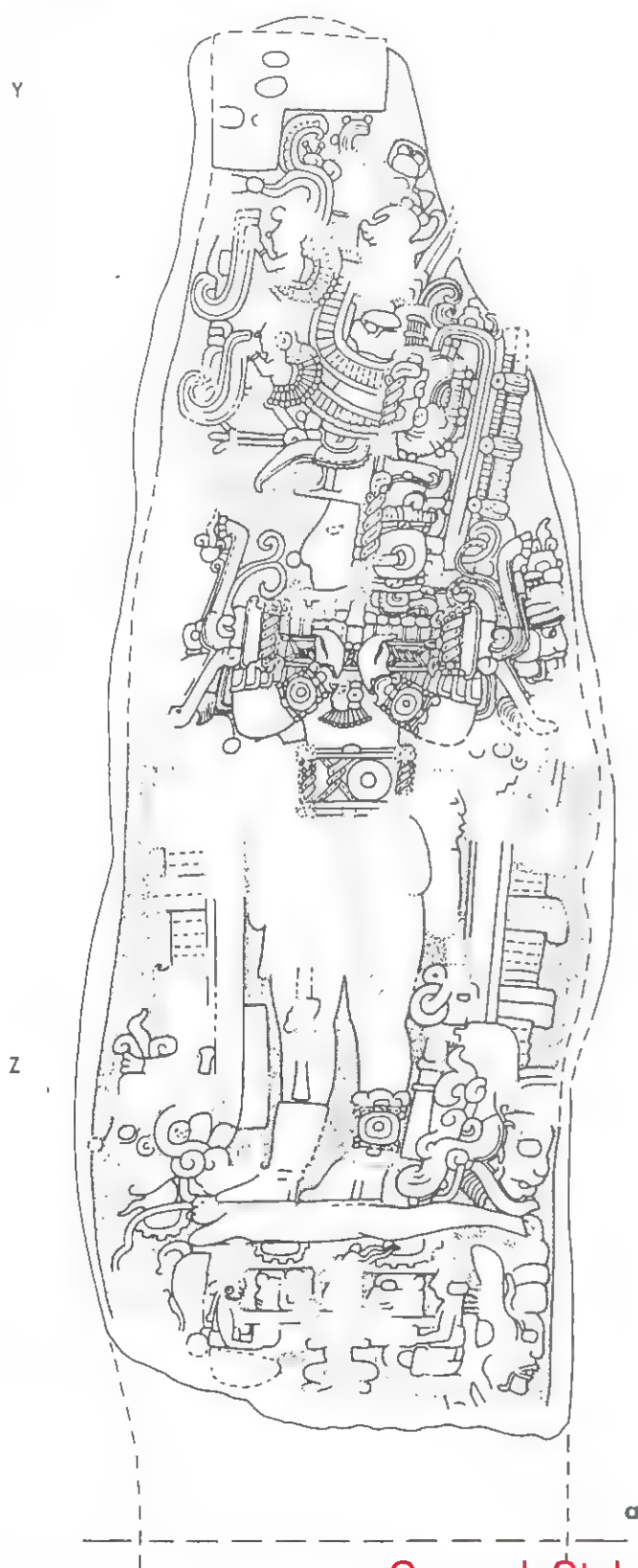
a



9.5. 3.9.15
12 Men 18 Kan Kin
b

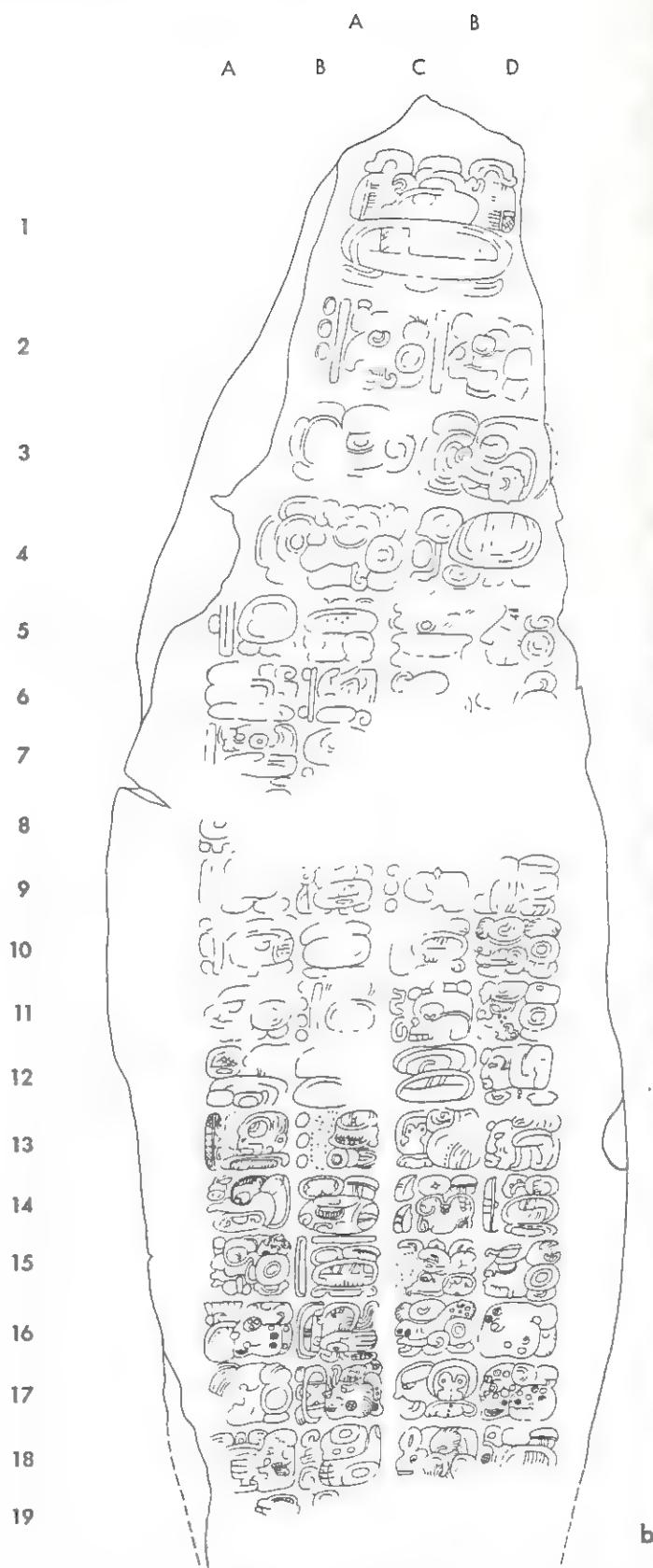


Tikal: 1990 Workshop 136



Caracol Stela 16

a. Stela 16: Front. 1:10
See photograph, Fig. 37a



b. Stela 16 Back. 1:10
See photograph, Fig. 37b

136a

STELA 16, BACK

A B

C D



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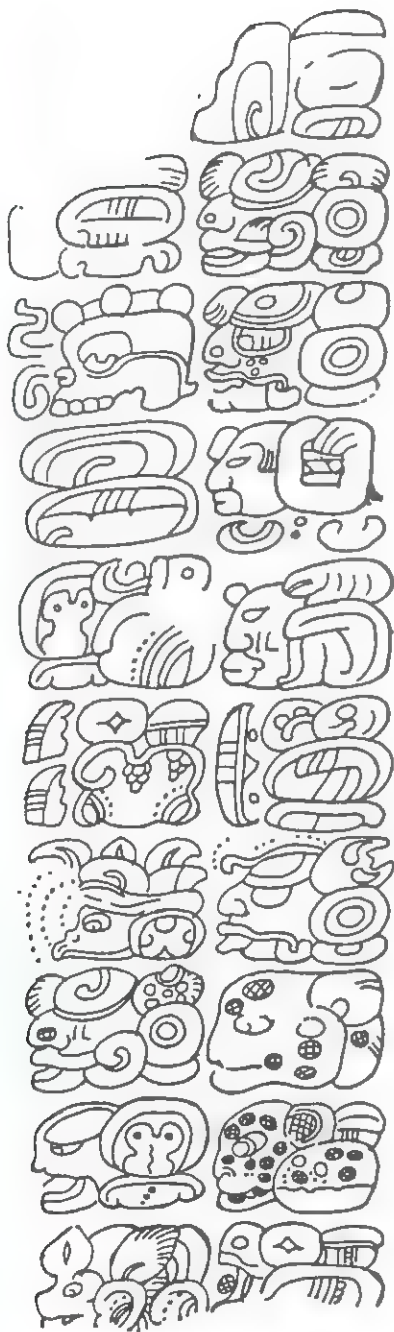
16

17

18

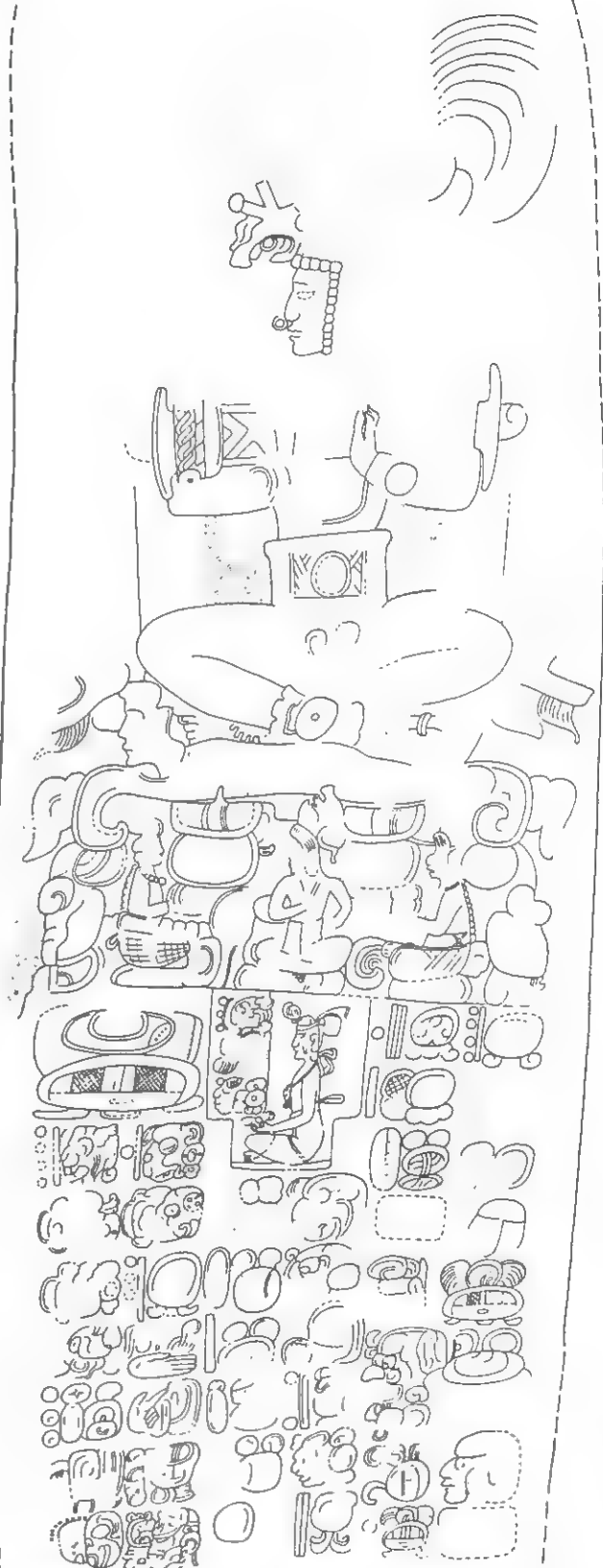
19

Caracol Stela 16



CARACOL ST. 16

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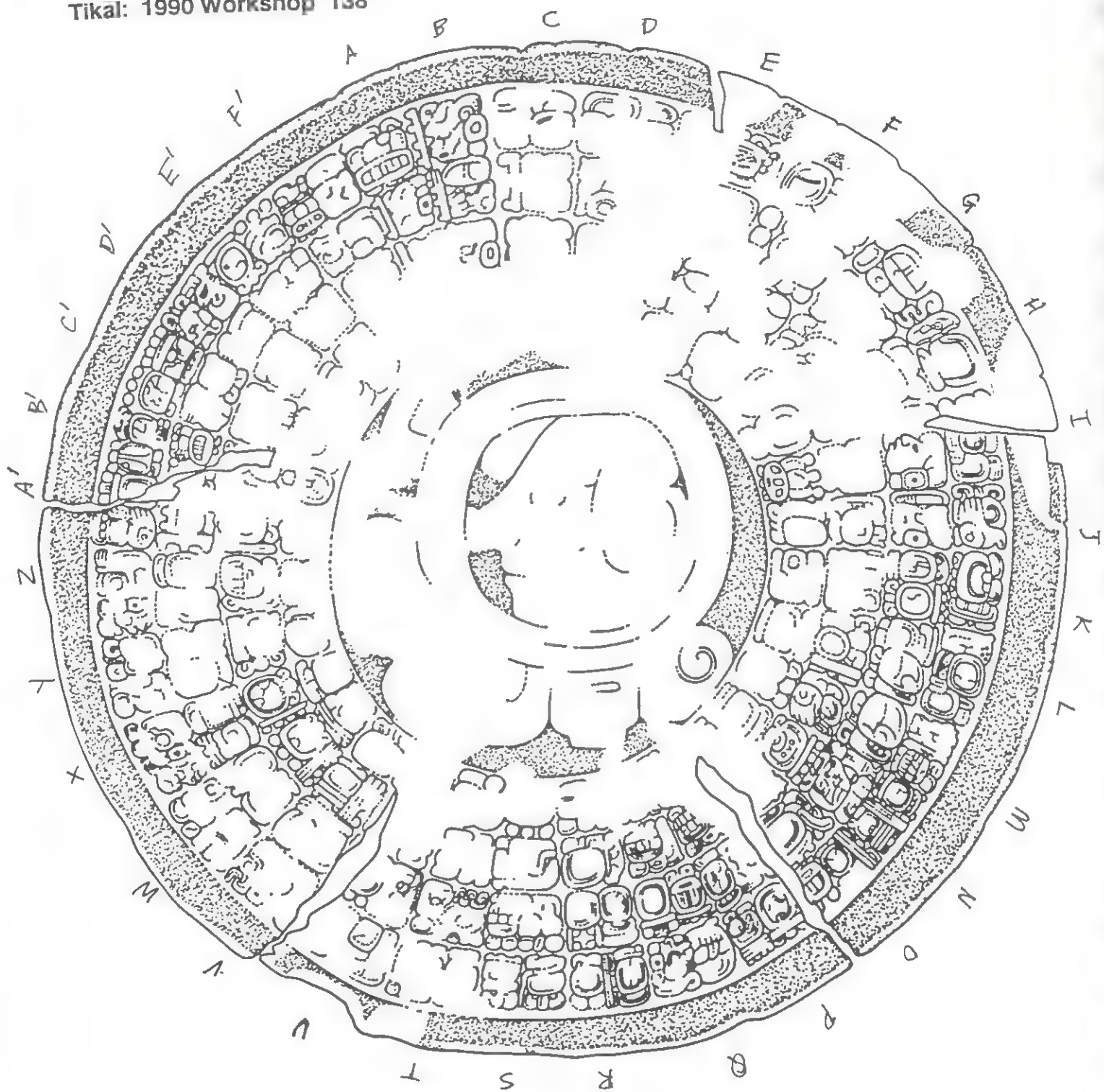


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CARACOL ST. 14

A B C D E F

a



CARACOL ALT. 21

Tikal: 1990 Workshop 139

Alt. 21	K2b-L2a	(9. 5. 19. 1. 2)	9 Ik 5 Uo	553	IV	16
St. 6	A7-B7a	(9. 6. 0. 0. 0)	9 Ahau 3 Uayeb	554	III	20
Alt. 5	A1	(9. 6. 0. 0. 0)	9 Ahau (3 Uayeb)	554	III	20
Alt. 21	N3-M4	(9. 6. 0. 0. 0)	9 Ahau 3 Uayeb	554	III	20
Alt. 21	P1	(9. 6. 2. 1.11)	6 Chuen 19 Pop	556	IV	9
Alt. 21	Q2b-R2a	(9. 6. 8. 4. 2)	7 Ik 0 Zip	562	IV	29
St. 3	A1-A8a	9. 6.12. 4.16)	5 Cib 14 Uo	566	IV	22
Alt. 21	W2b-X2a	(9. 6.17. 17. 0)	8 Ahau 13 Mac	571	XI	26
Alt. 21	X3-W4	(9. 6.18. 2.19)	9 Cauac 12 Kayab	572	II	13
Alt. 21	A'1b-B'1b	(9. 7. 0. 0. 0)	7 Ahau 3 Kankin	573	XII	5
Alt. 21	A1-?	9. 7.14. 10.*8	(3 Lamat 16 Uo)	588	IV	18
Alt. 21	B'4-C'1a	?(9. 7.19. 10. 0)	*1 Ahau 3 Pop	593	III	15
Alt. 21	E'1a	(9.)8. 0. 0. 0	5 Ahau 3 Chen	593	VIII	22

Caracol Altar 21

Tikal: 1990 Workshop 140

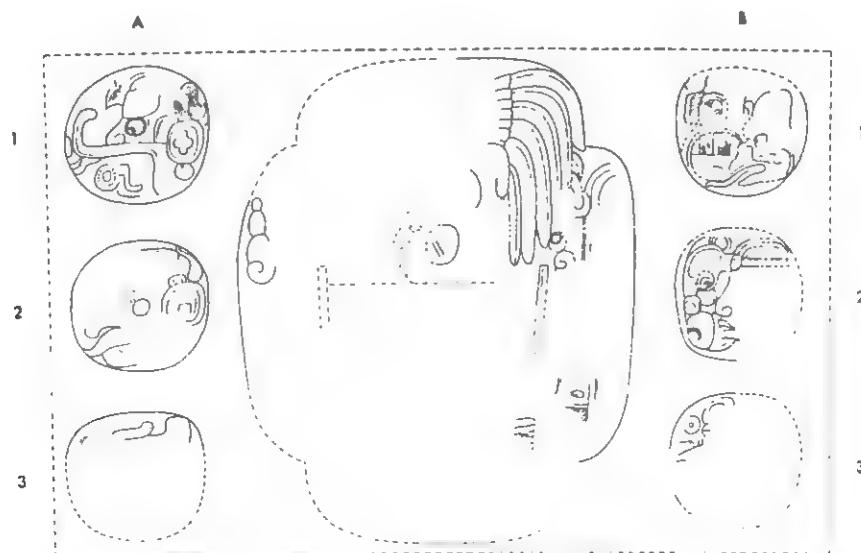
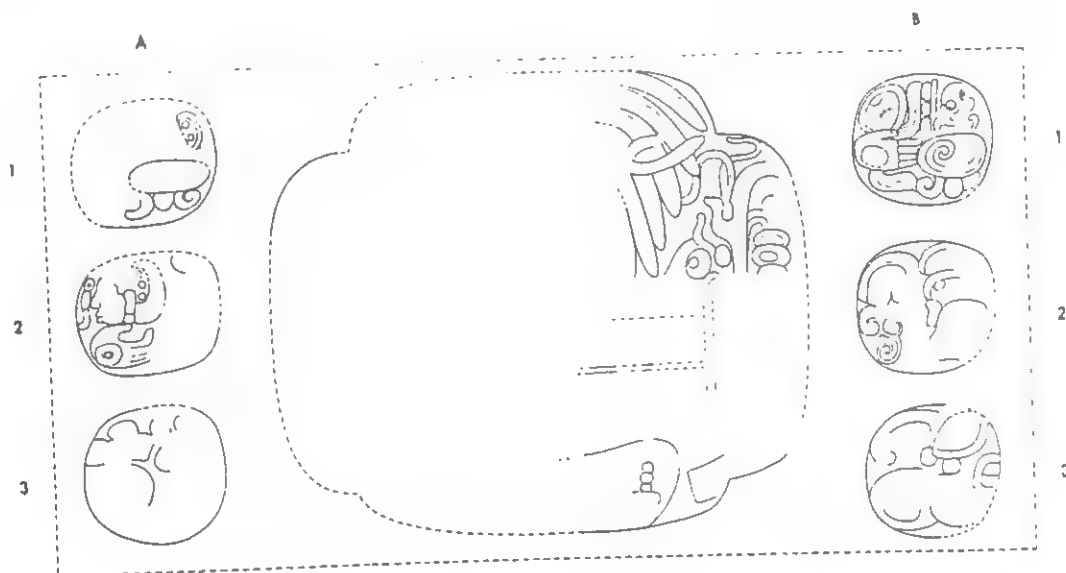
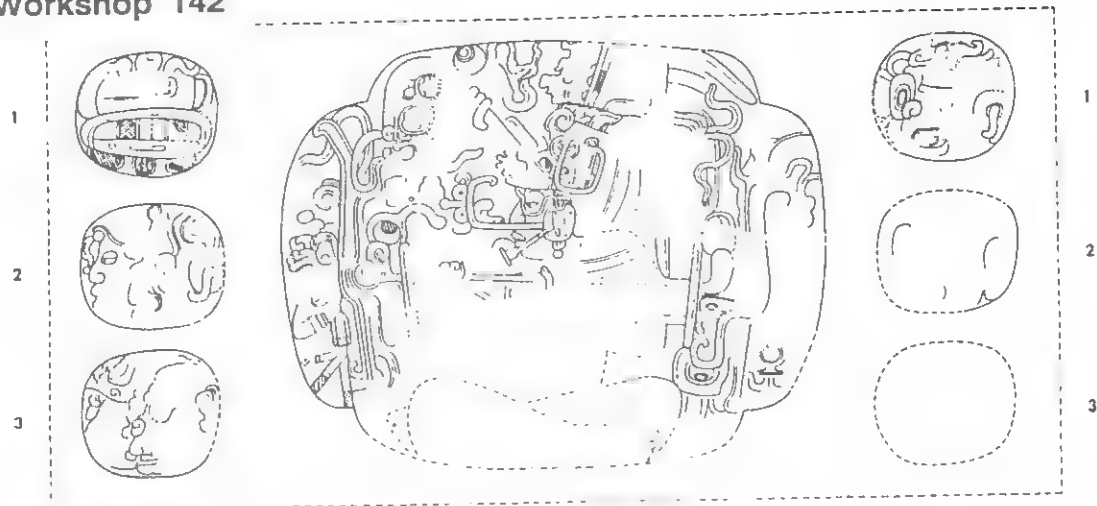


MT 217 Burial 195

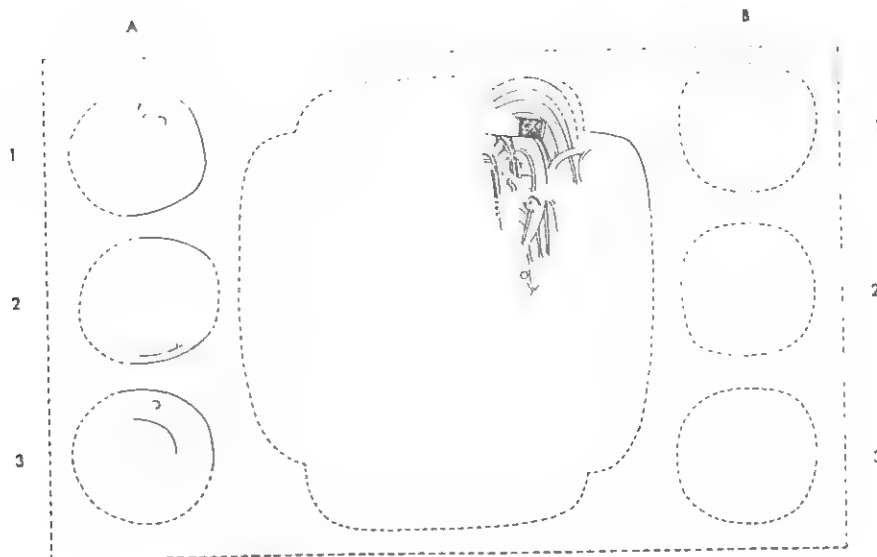


69-5-B7K

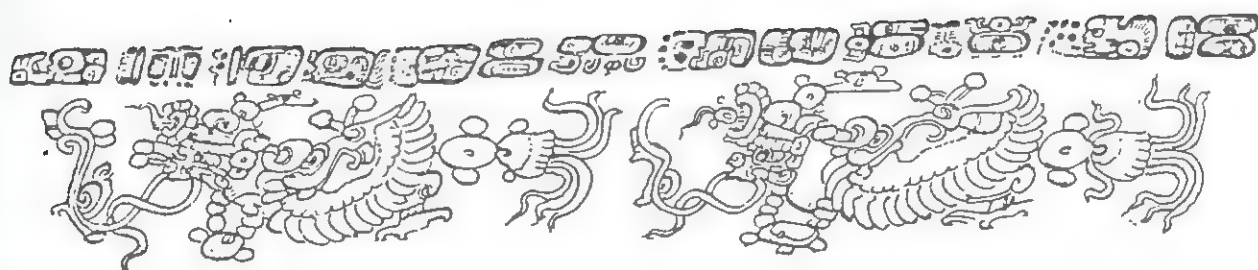
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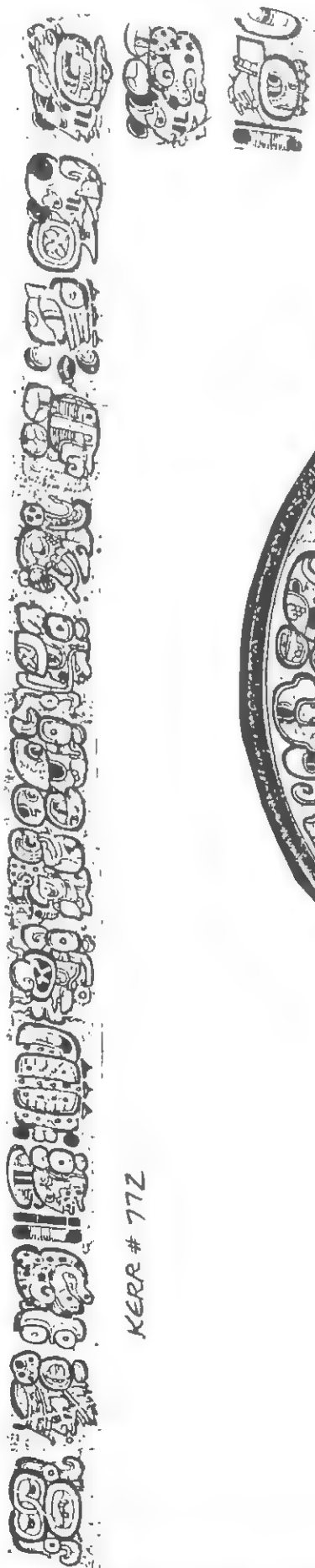
WOODEN PANELS from Bu. 195



Bu. 195 cont'd.



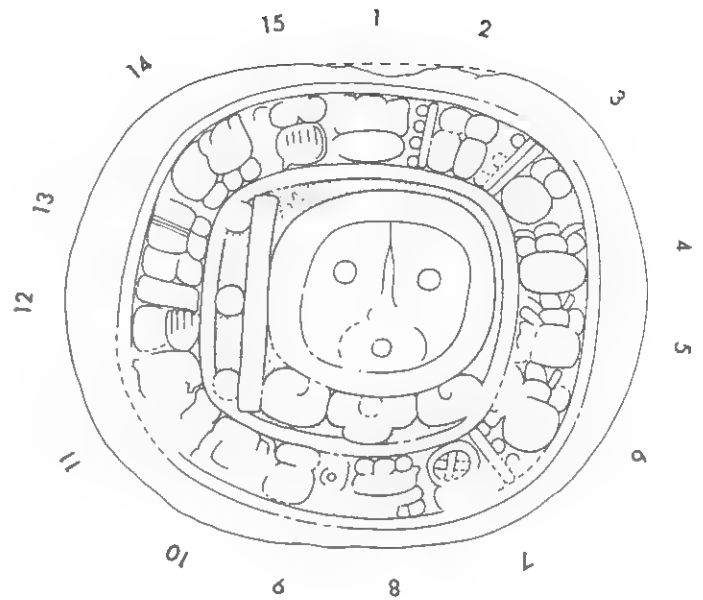
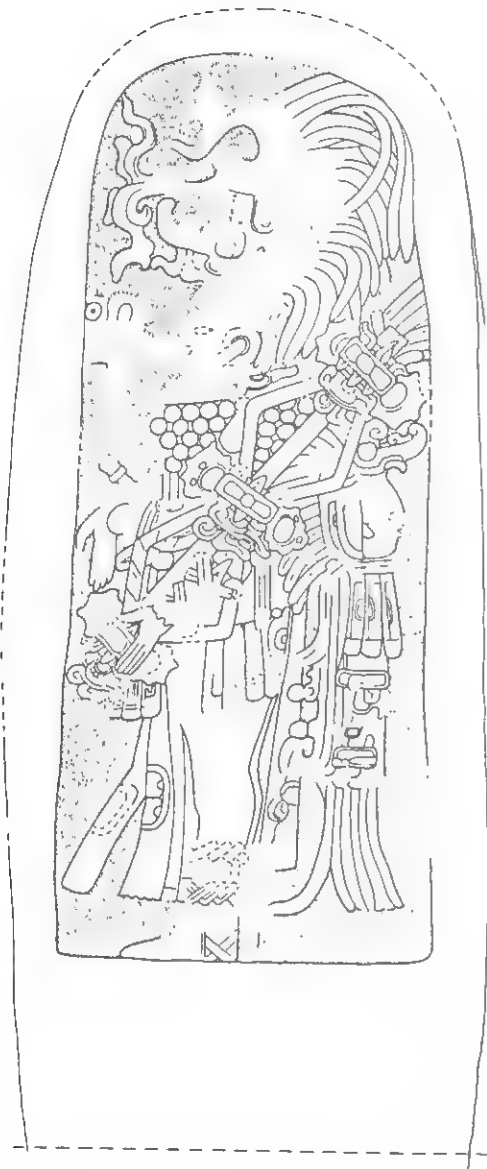
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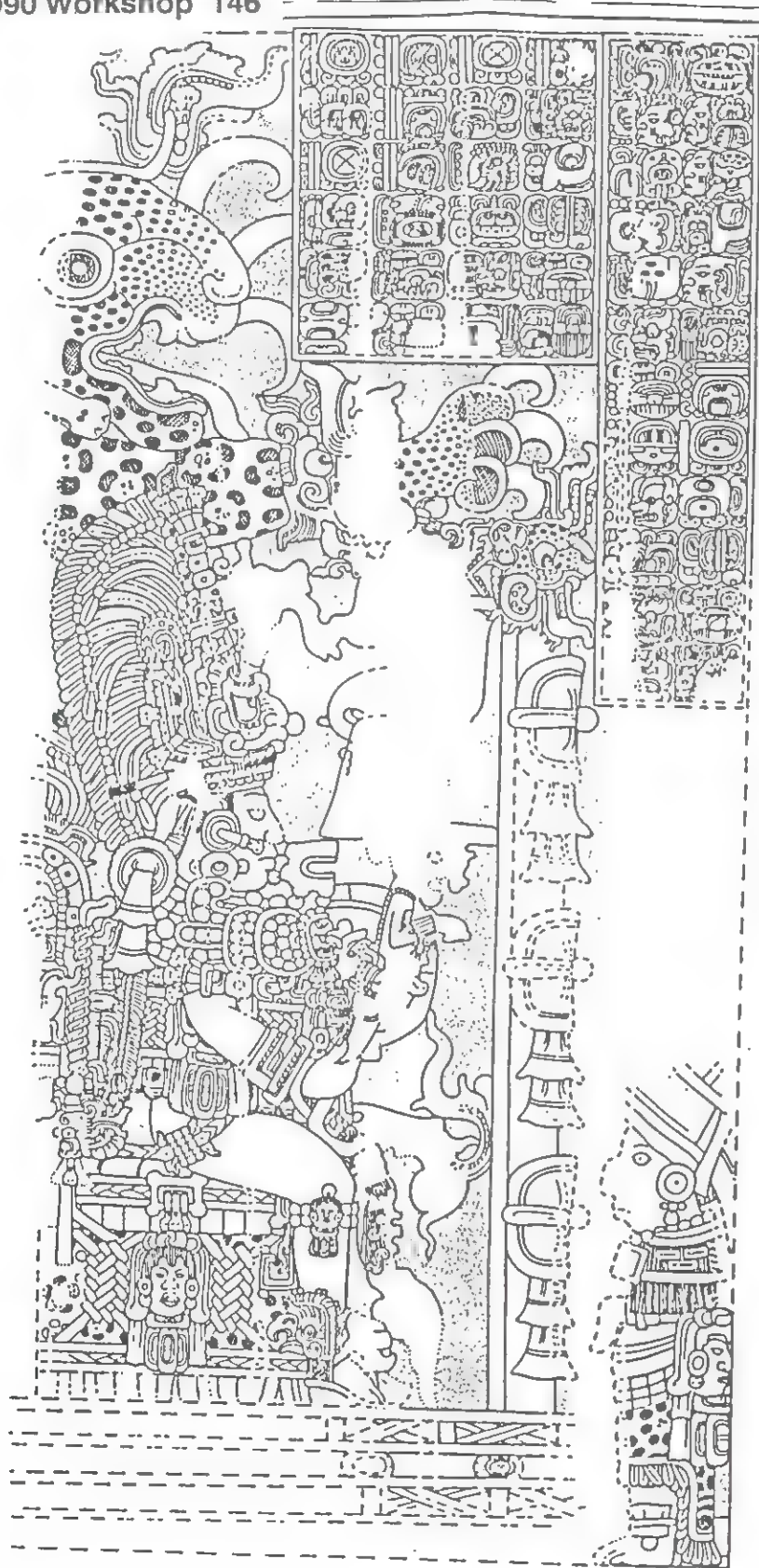
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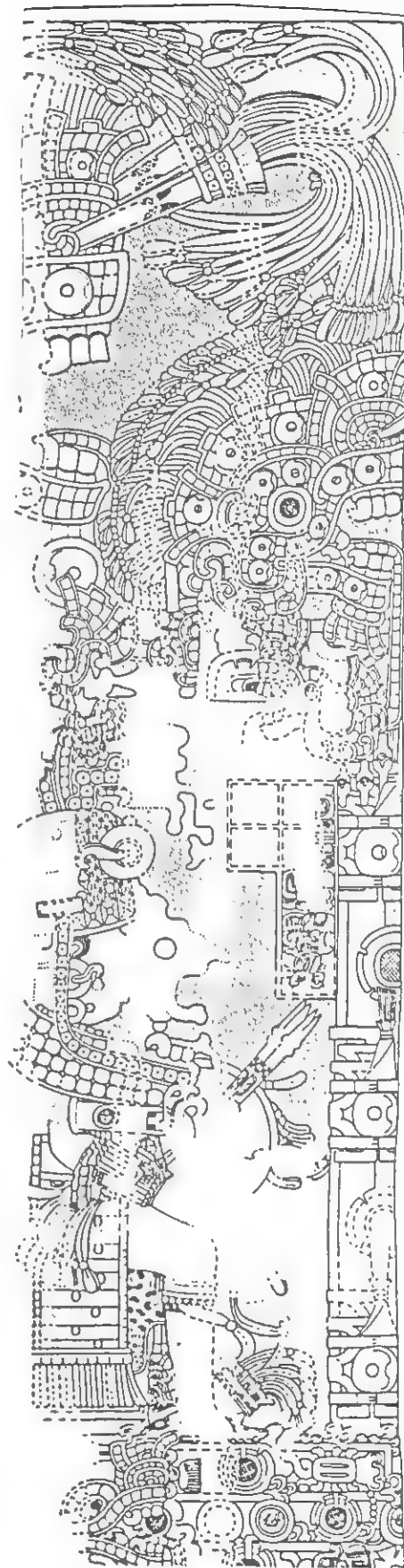
COE 1982 #38

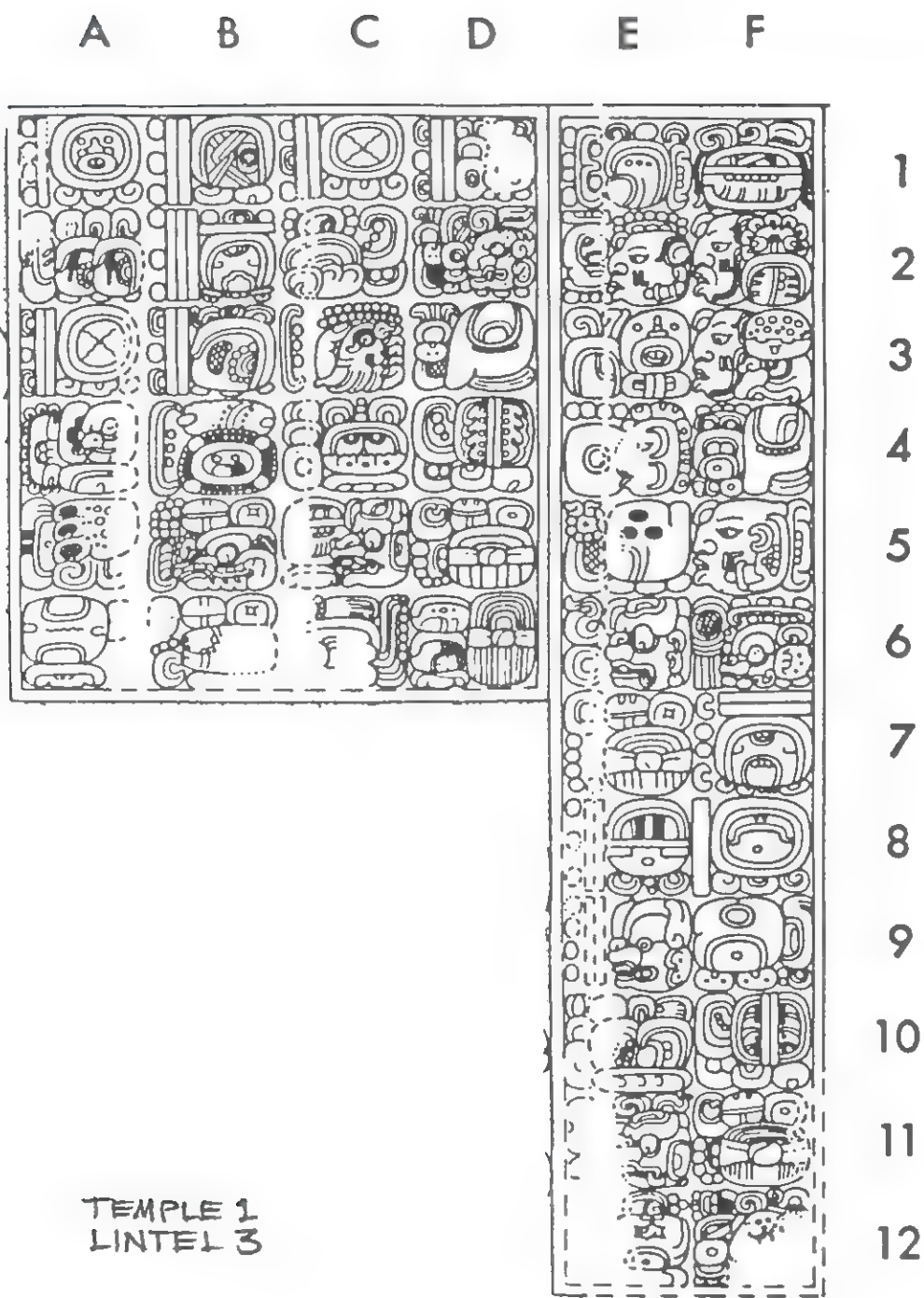


stela 30
9.13.0.0.0



TEMPLE 1
LINTEL 3

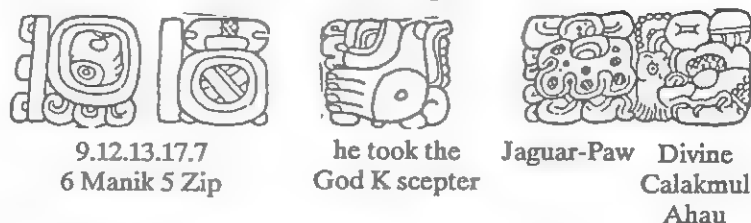




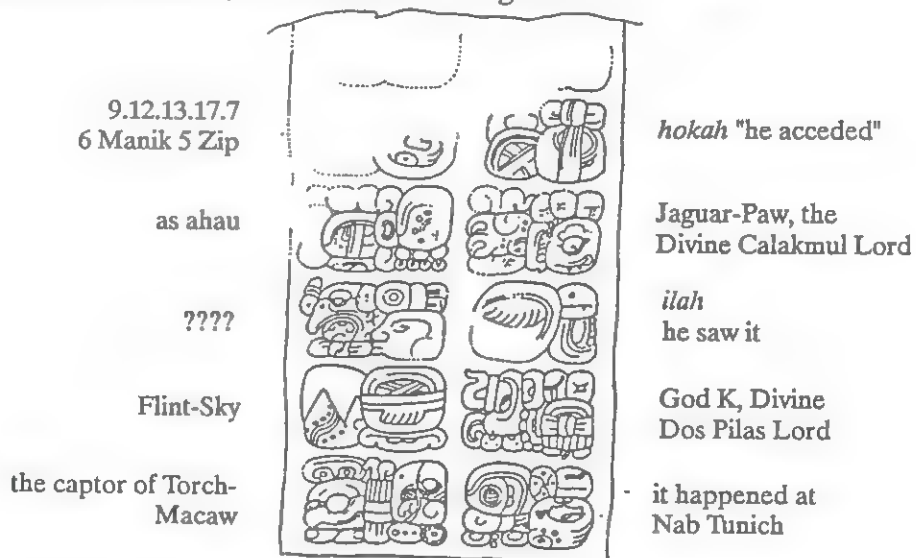
TEMPLE 1
LINTEL 3

Li. 3					
A1-B1	Date A	(PE)	(9.13. 3. 0. 0)	9 Ahau 13 Pop	(yax-double-cauac glyph)
A2					
B2		DN 1	+ 7.18		
A3-B3	Date B		(9.13. 3. 7.18)	11 Eznab 11 Chen	
			+ (2. 0)	Suppressed DN	
C1-D1	Date C		(9.13. 3. 9.18)	12 Eznab 11 Zac	
F7-E8		DN 2	- 13.10. 2		
F8-E9	Date D		(9.12. 9.17.16)	5 Cib 14 Zotz	

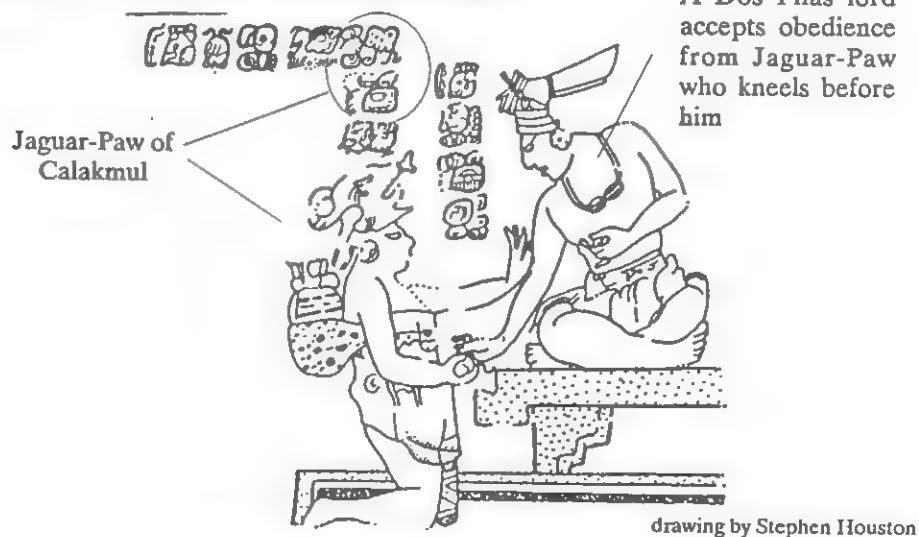
a. El Perú Stela 30, the accession of Jaguar-Paw



b. Dos Pilas Stela 13, the accession of Jaguar-Paw

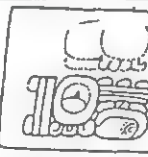



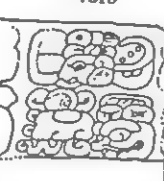
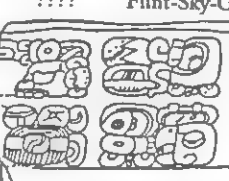


c. Jaguar-Paw at Dos Pilas as a subordinate






Jaguar-Paw at El Perú and Dos Pilas

a. Dos Pilas Hieroglyphic Stair 2 East, Step 1

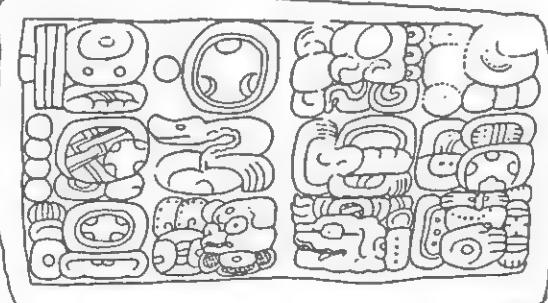
9 uinals, 17 days	after the half-period happened	9.11.11.9.17 9 Caban 5 Pop	he was cap- tured	Flint-Sky-God K	
					
on 11 Ahau 18 Chen (9.11.10.0.0)	and then it hap- pened	Torch- Macaw	He-of-???, the captive of	Divine Dos Pilas Ahau	bacab
					
		Jaguar-Paw, Calakmul Ahau	verb	????	Flint-Sky-God K
				Divine Dos Pilas Lord	it happened at Yaxhá

b. Dos Pilas Hieroglyphic Stair 2 East, Step 3

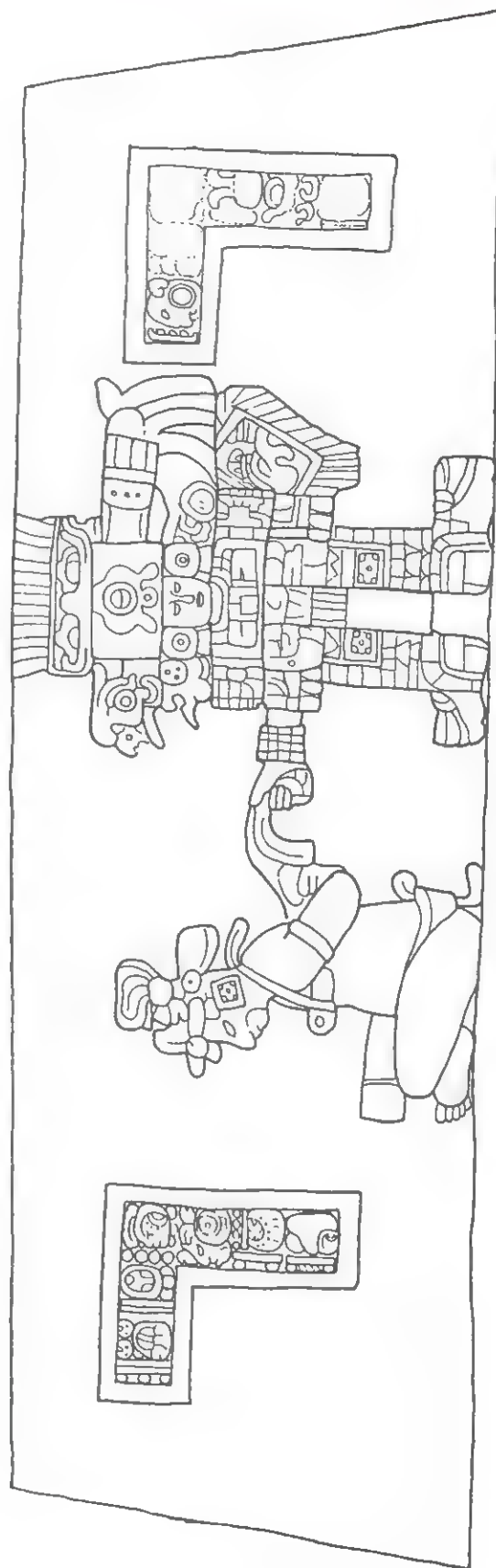
c. Site Q, Glyphic Panel 6

		
9.10.16.16.19 3 Cauac 2 Ceh	he was born	Jaguar-Paw Calakmul Ahau

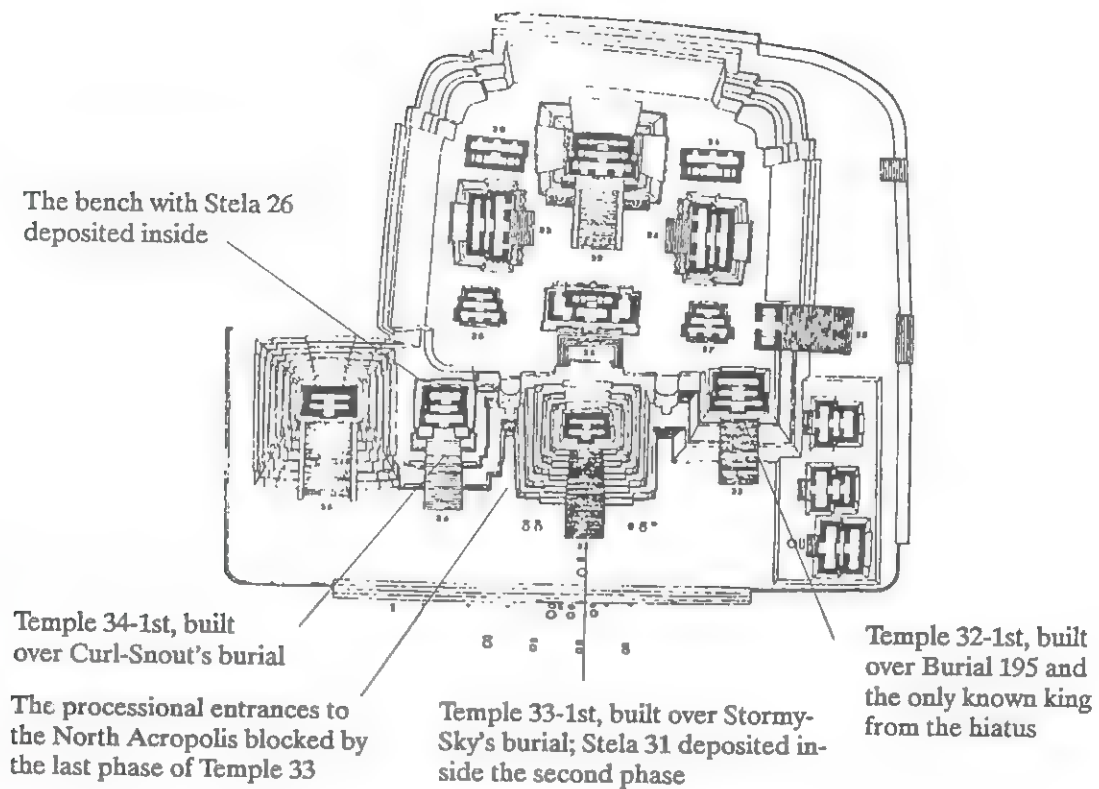
d. Site Q, Glyphic Panel 11

16 days later / on 1 Chuen			Jaguar-Paw
4 Pop/ the shell-dragon event happened			the sibling of / the younger brother person
at the Kan-Tok ?? place			name and title of the younger brother

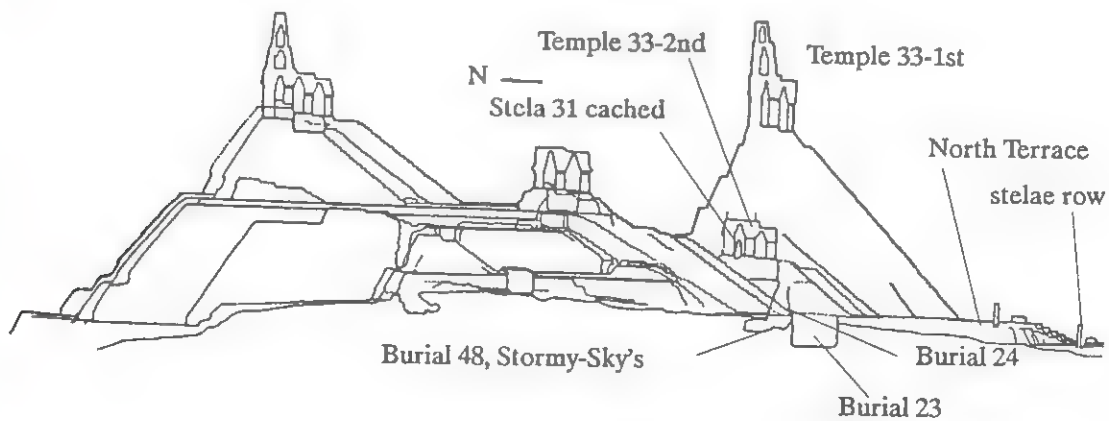
Jaguar-Paw at Dos Pilas and Site Q (Calakmul?)



< STR. 50-57



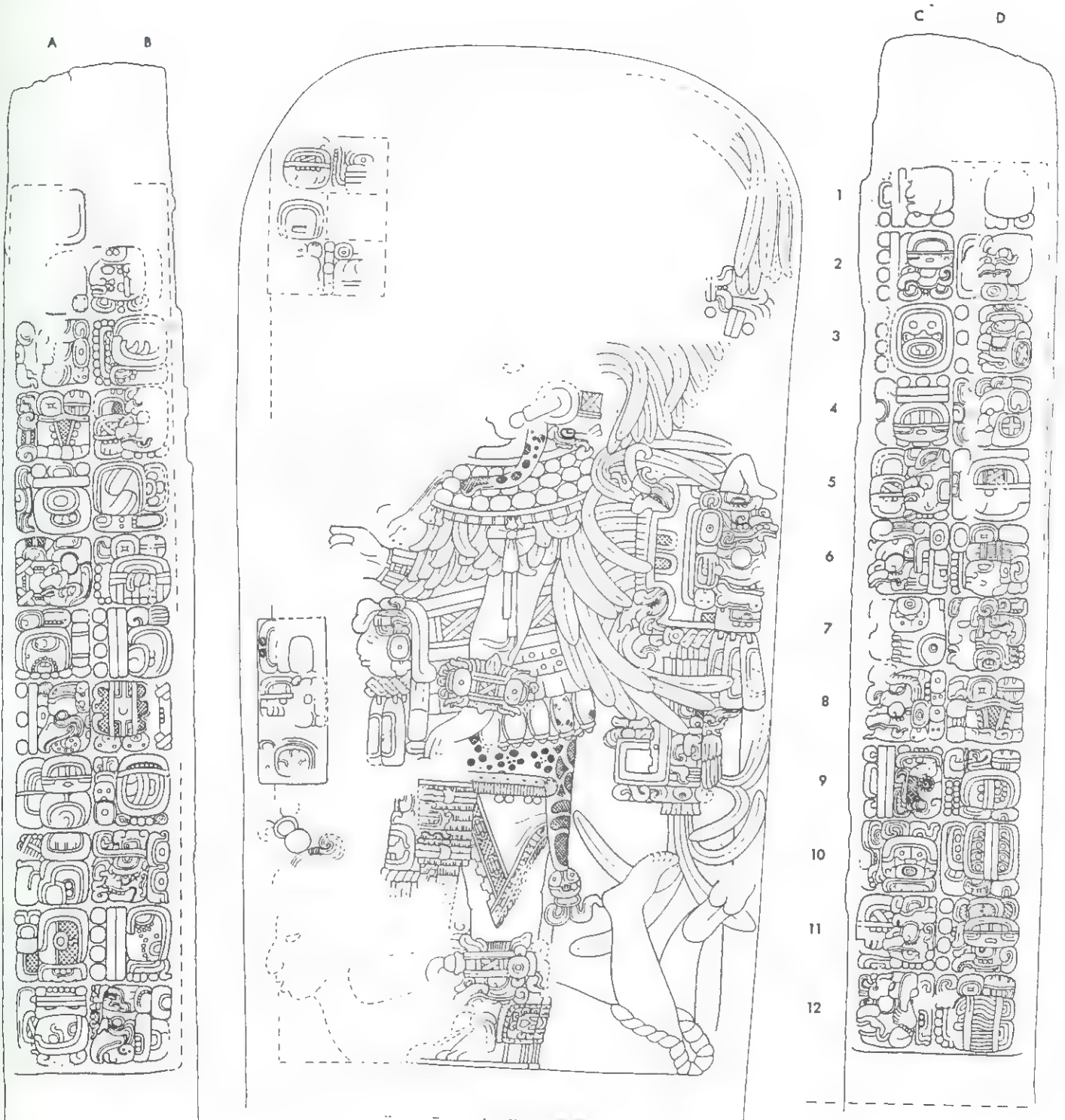
North Acropolis, plan view



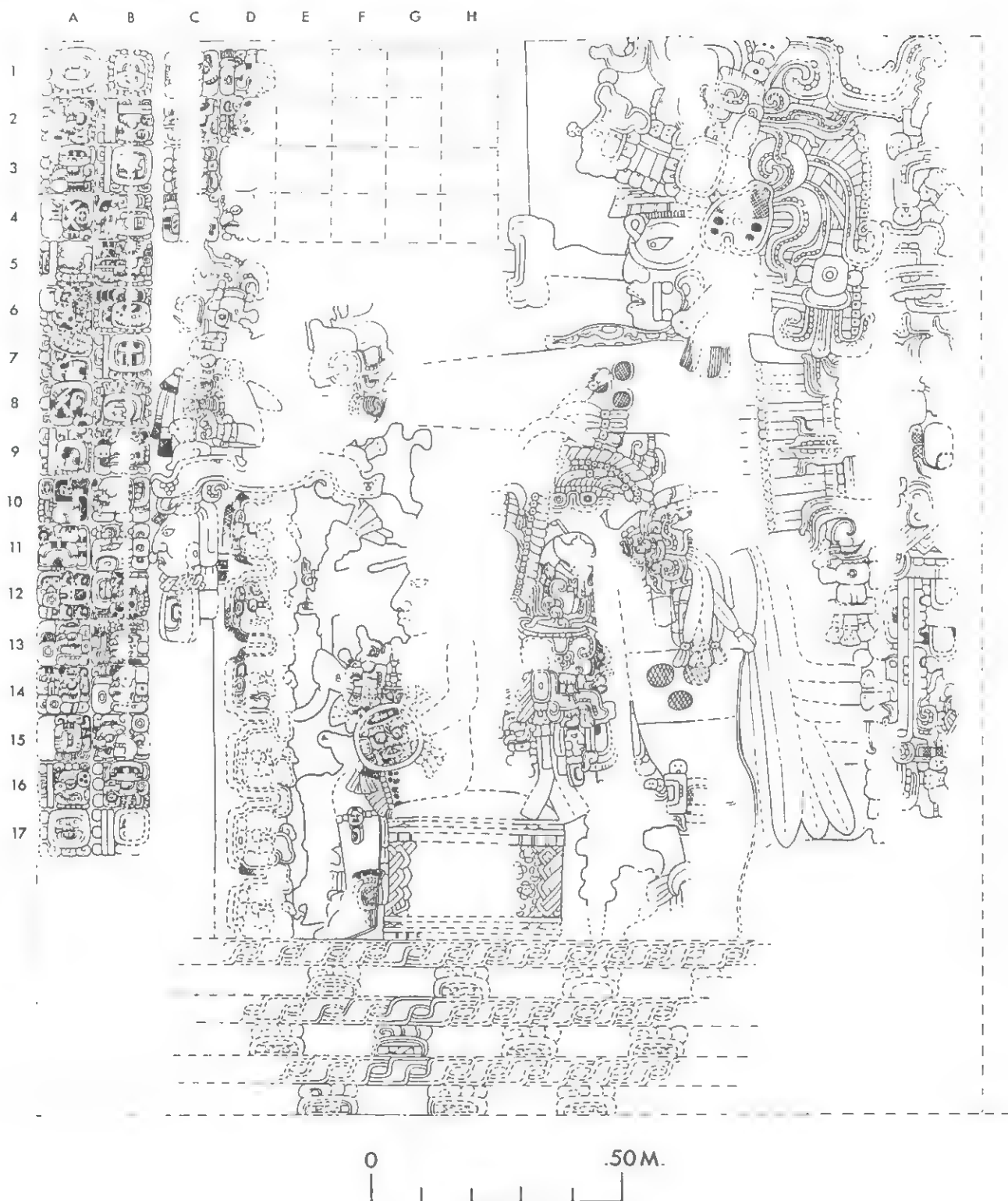
North Acropolis, section

Ah-Cacaw's Renovations to the North Acropolis

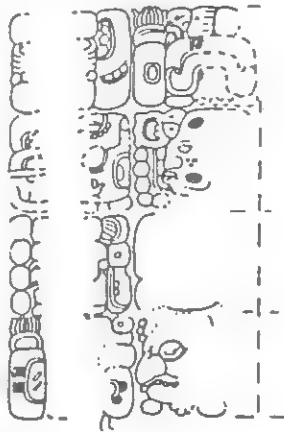
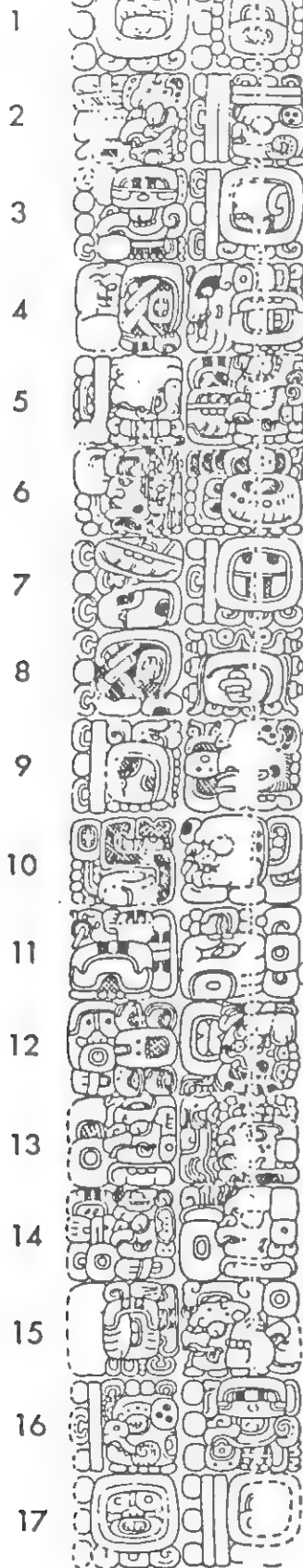
Ruler B



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Tikal Str. 5C-4 (Temple IV):Li. 2.



Li. 2

A1-A2

(9.15.10. 0. 0)

3 Ahau 3 Mol, half katun

B2-A3

+ 2.11.12

B3-A4

(9.15.12.11.12)

6 Eb 0 Pop

A7

+ 1

B7-A8

(9.15.12.11.13)

7 Ben 1 Pop

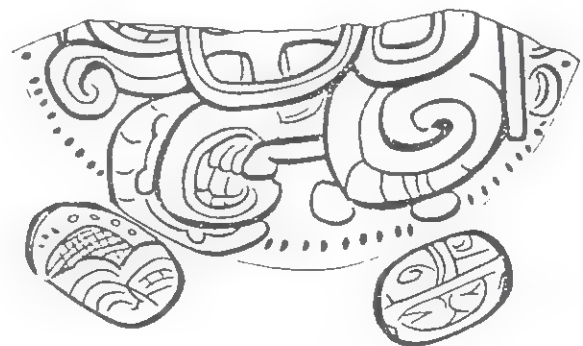
A16-B16

+ 3. 2. 7

A17-B17

(9.15.15.14. 0)

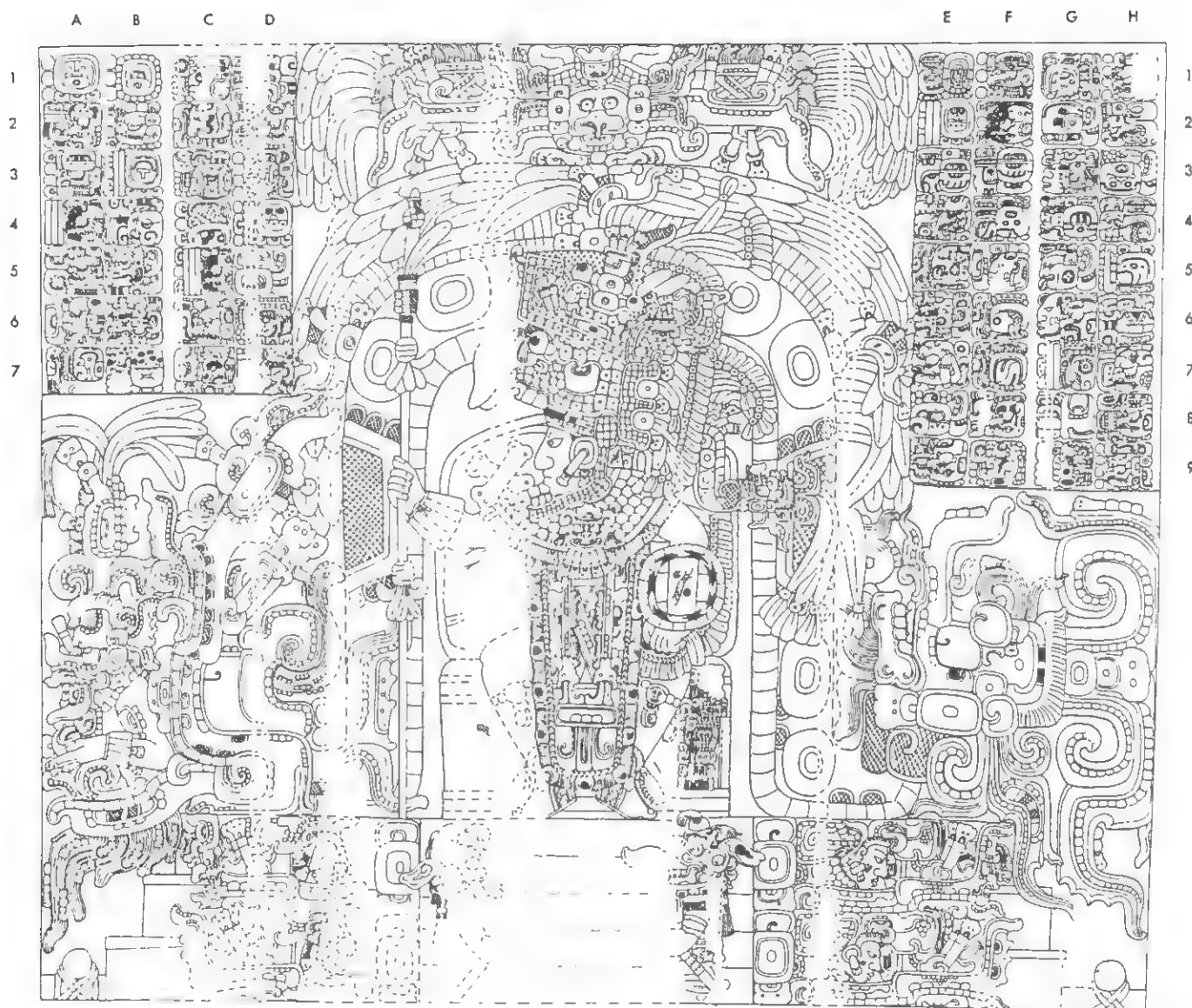
3 Ahau 13 Uo



mt 20

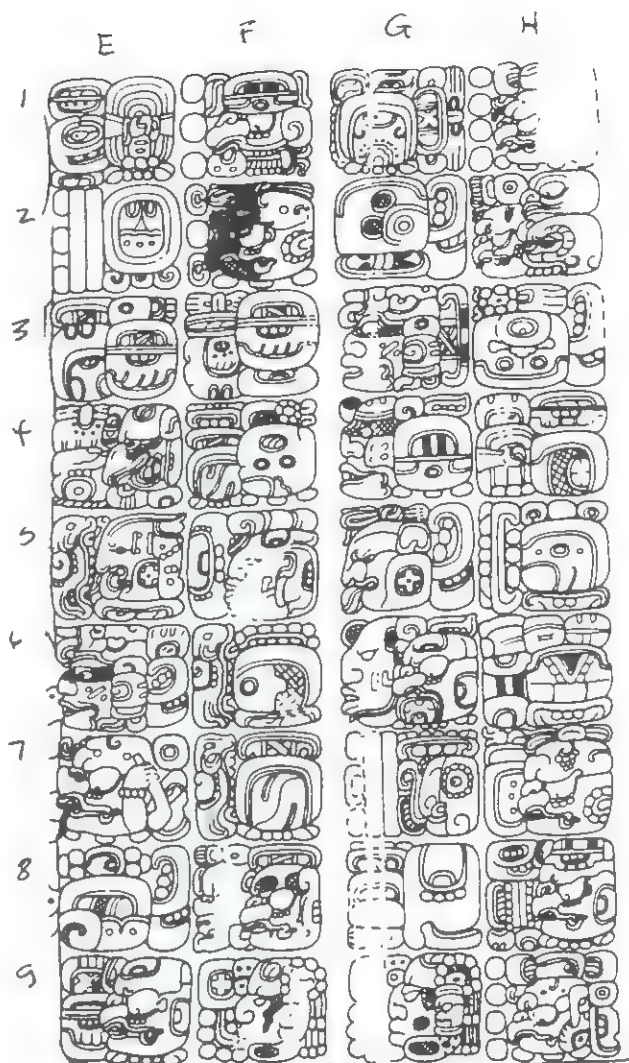
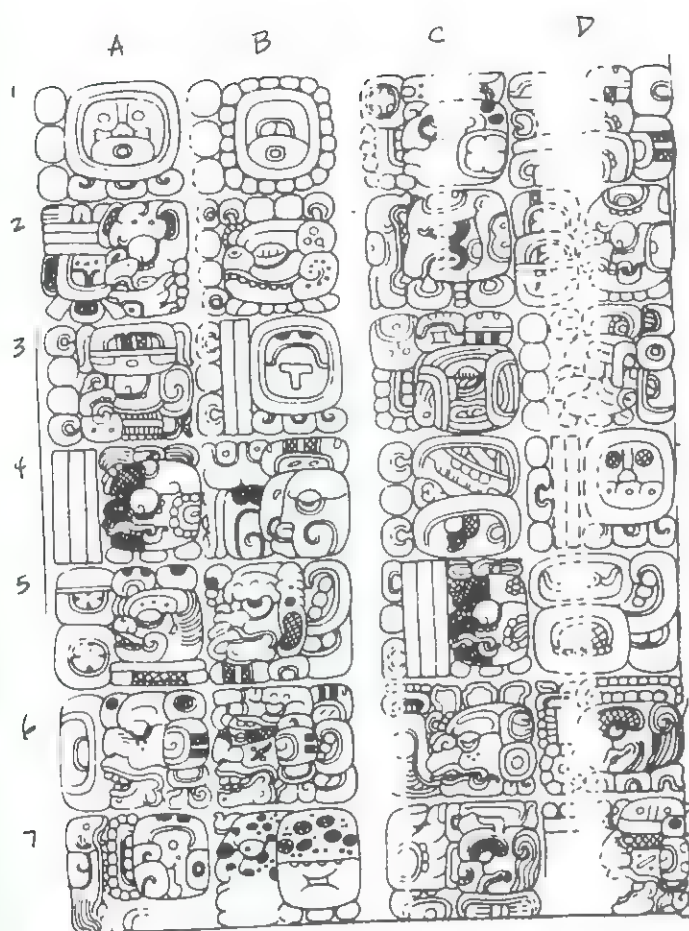
TEMPLE 4
LINTEL 2

Tikal: 1990 Workshop 156



0 .50 M.

Tikal Str. 5C-4 (Temple IV):Li. 3.



Li. 3
A1-A2
B2-A3
B3-A4
C4
D4-C5
F1
E2-F2

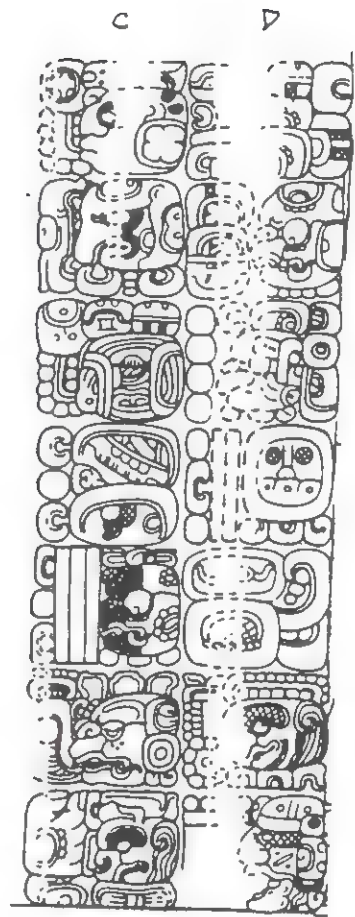
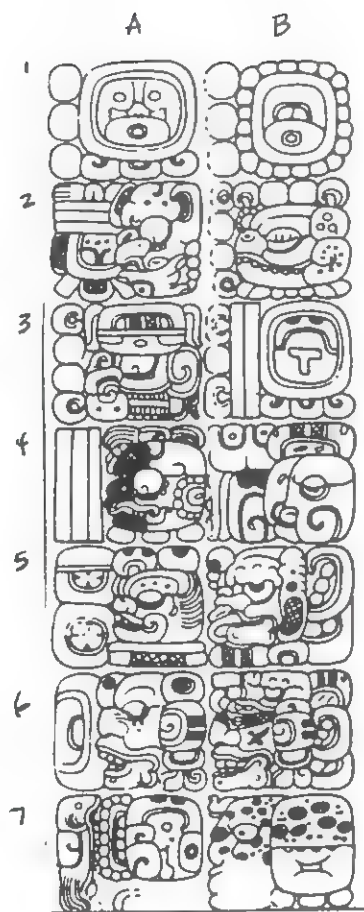
Date A
Date B
Date C
Date D

PE
DN 1
DN 2
DN 3

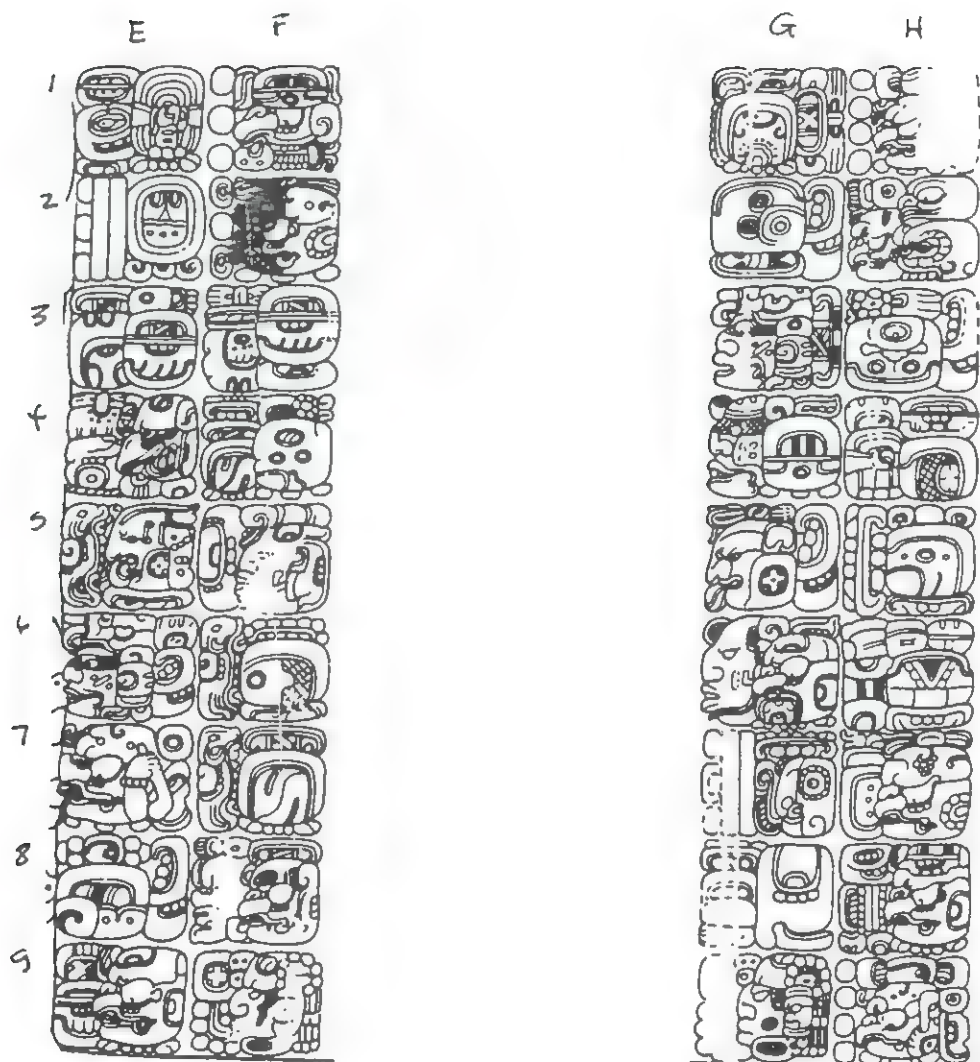
(9.15.10. 0. 0)
+ 2. 2. 2
(9.15.12. 2. 3)
+ 1
(9.15.12. 2. 3)
+ 3.(0. 0)
(9.15.15. 2. 3)

3 Ahau 3 Mol, half katun
11 Ik 15 Chen
12 Akbal 16 Chen
13 Akbal 1 Chen

TEMPLE 4
LINTEL 3



TEMPLE 4
LINTEL 3 (LEFT)



TEMPLE 4
LINTEL 3 (RIGHT)

A B C

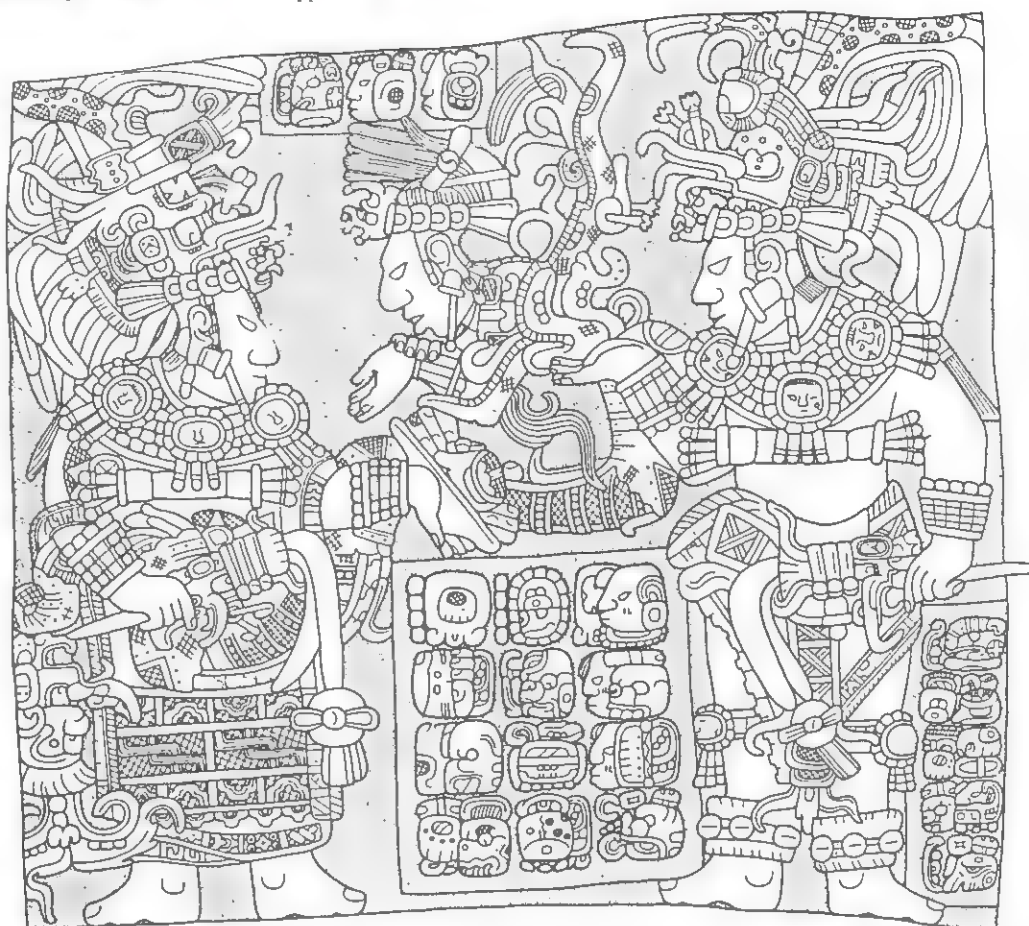
D E F

1

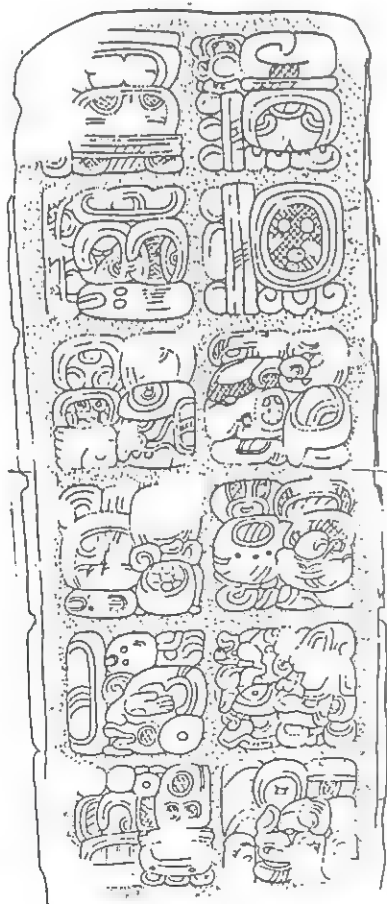
2

3

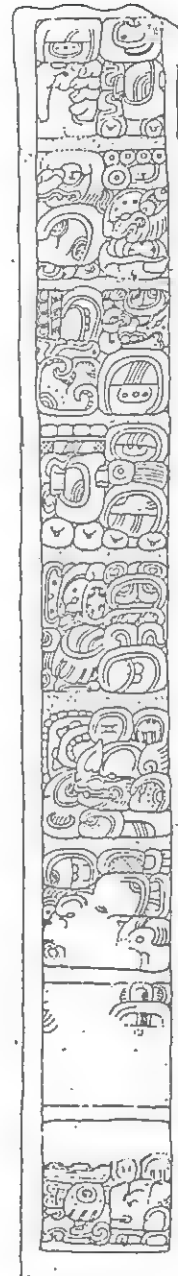
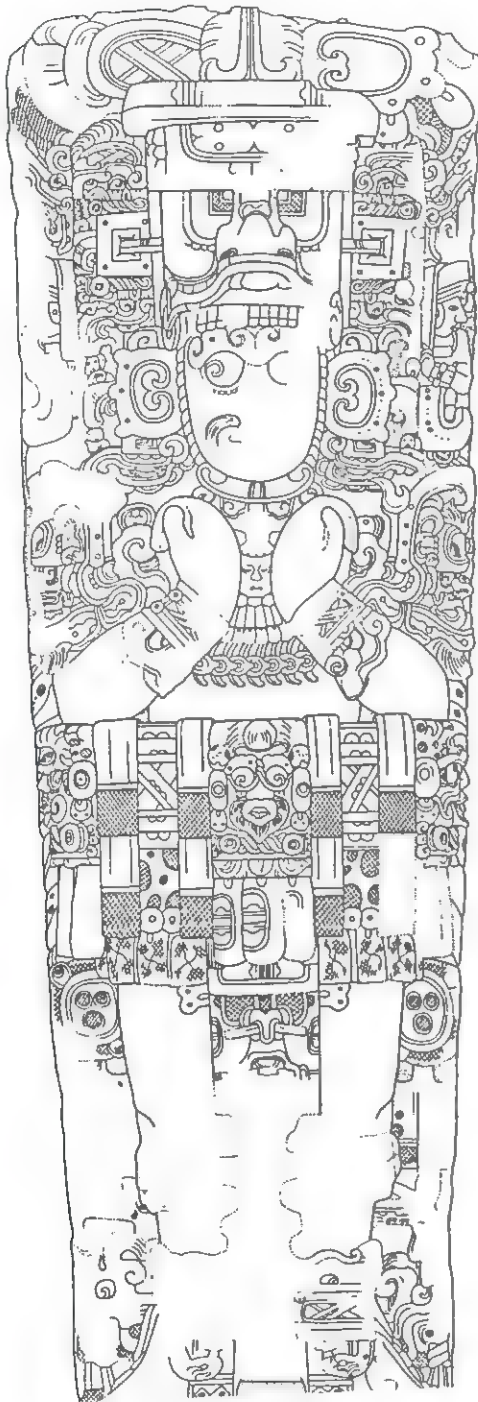
4



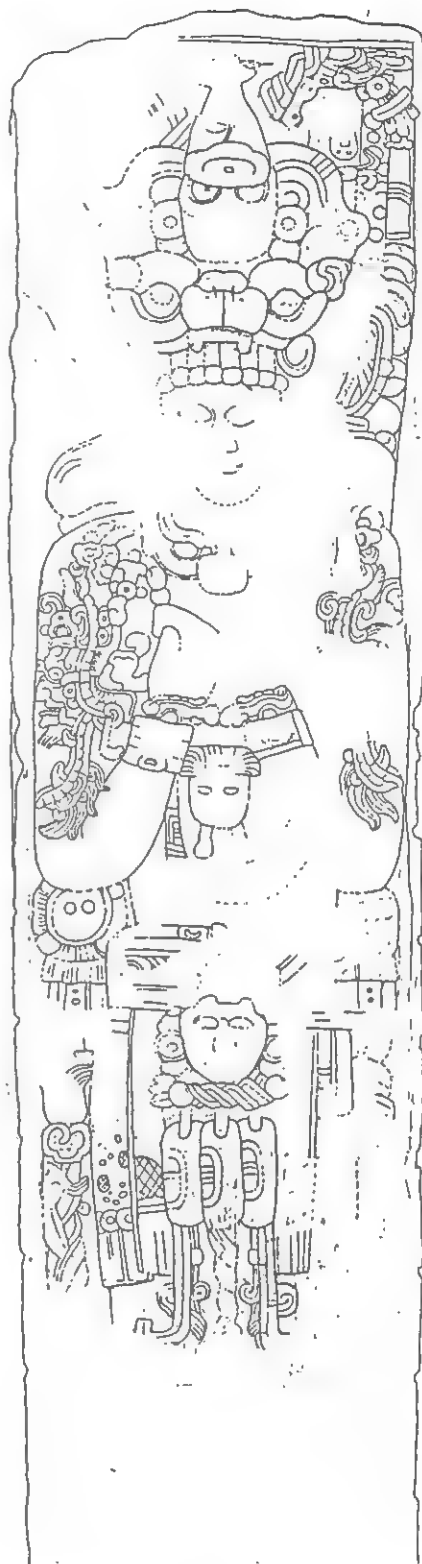
Yaxchilan
Lintel 14



Copan
ST. 12



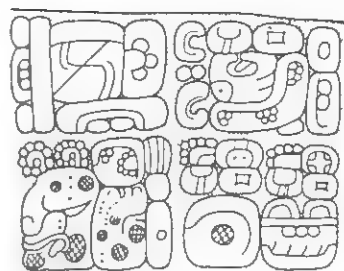
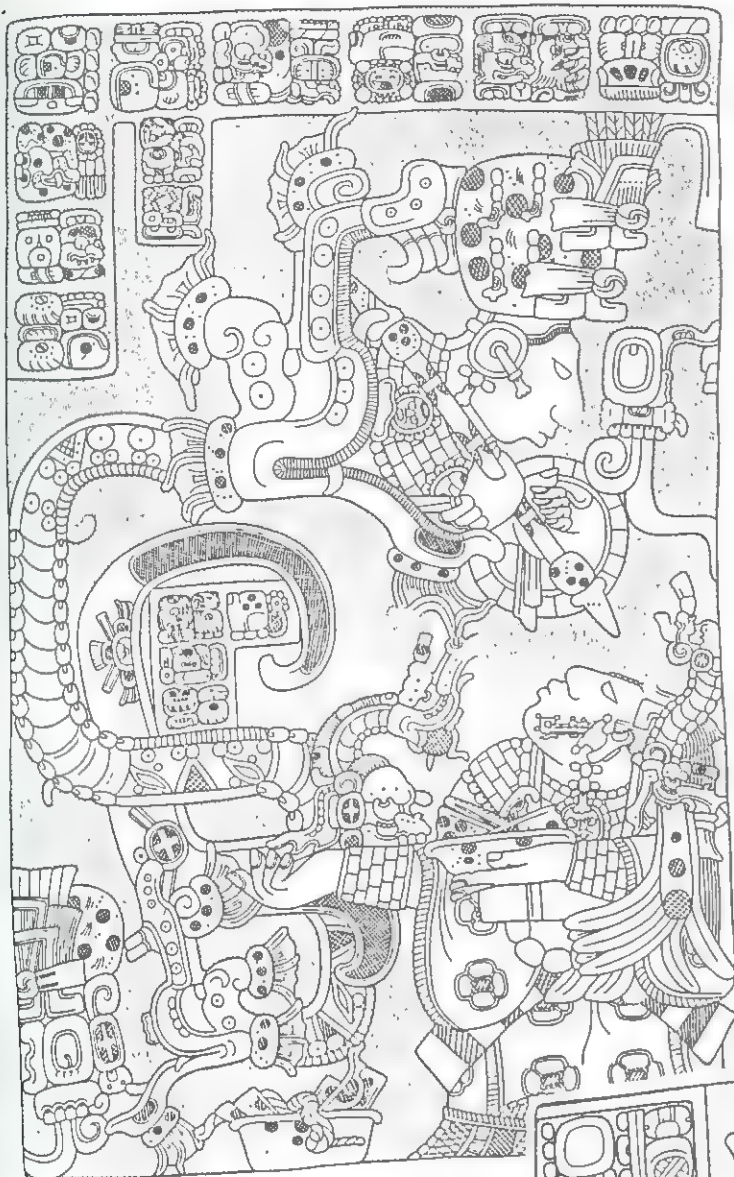
Copan ST I



COPAN ST. 7

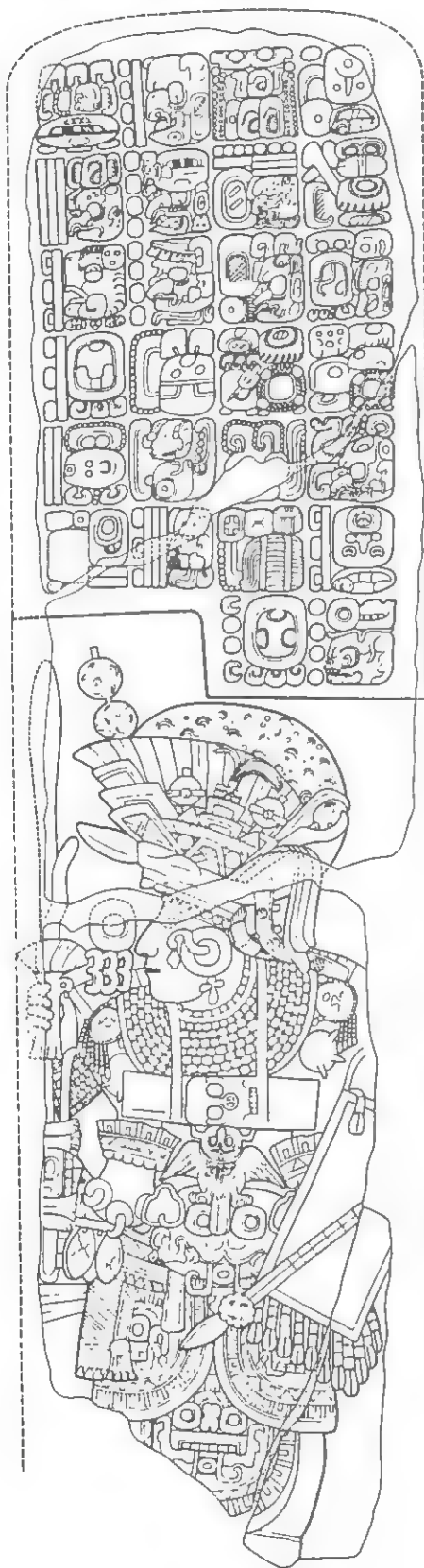
Taxchilan

L. 25



Taxchilan L. 15



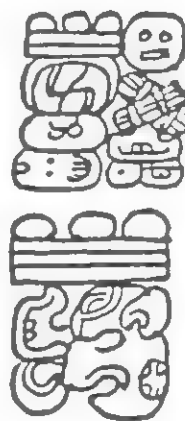


DOS PILAS ST. 16

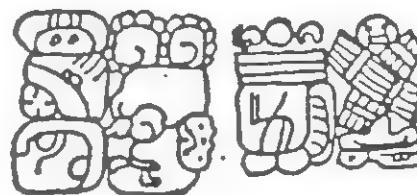
COPAN



a. Stela 12
u cab of
Mah K'ina
Yax-K'uk'-Mo



d. Stela B
the 13th successor
of the Founder



e. Temple 11
South Reviewing Stand



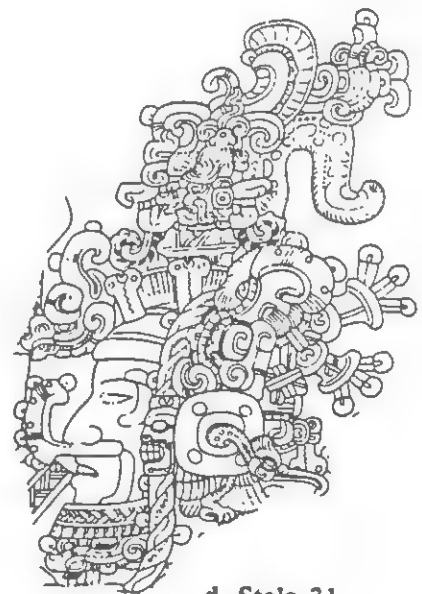
a. MT 140



b. Looted pot

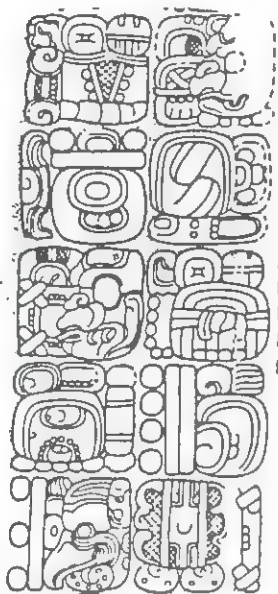


c. Stela 39

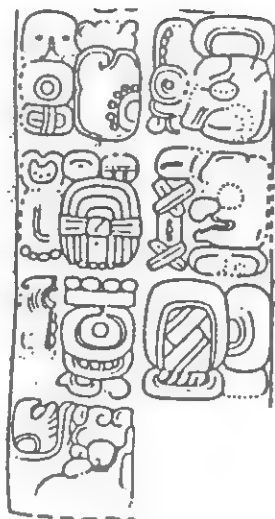


d. Stela 31

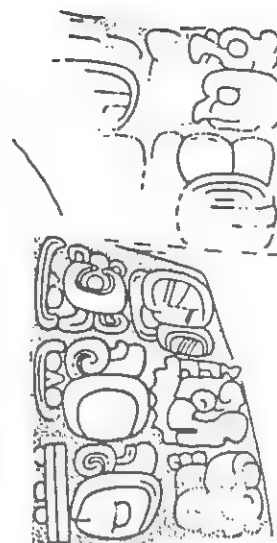
Figure 6
Tikal



a. Stela 5



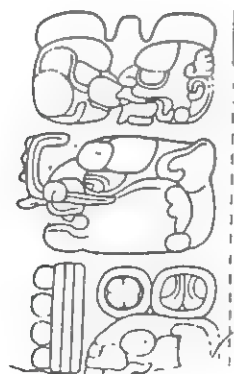
b. Stela 22



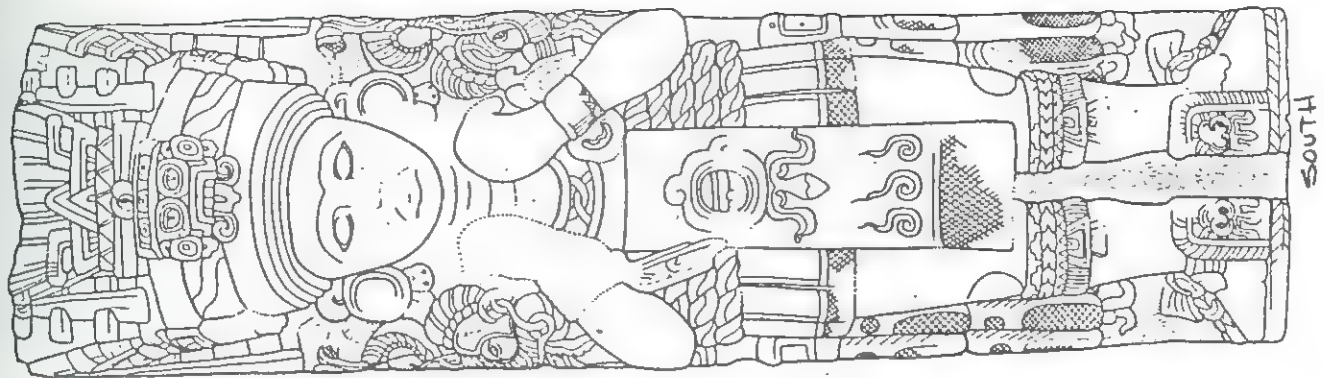
c. MT 195



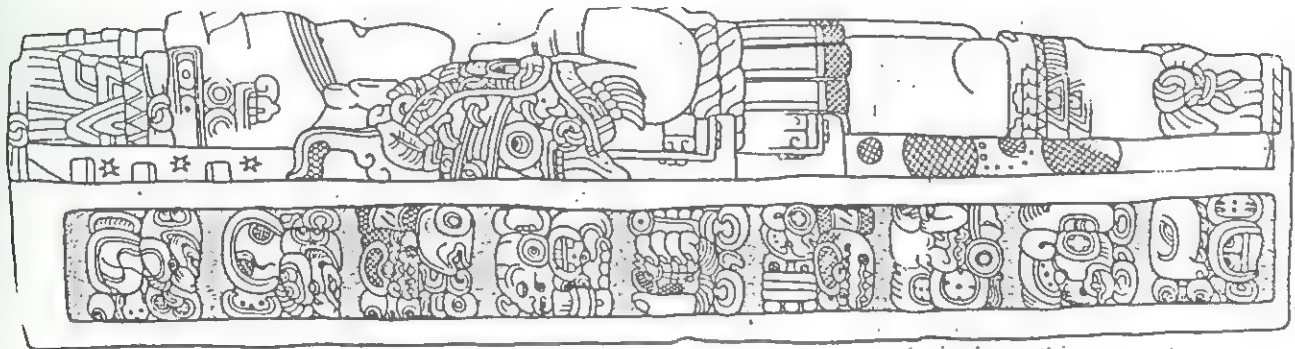
d. Stela 17



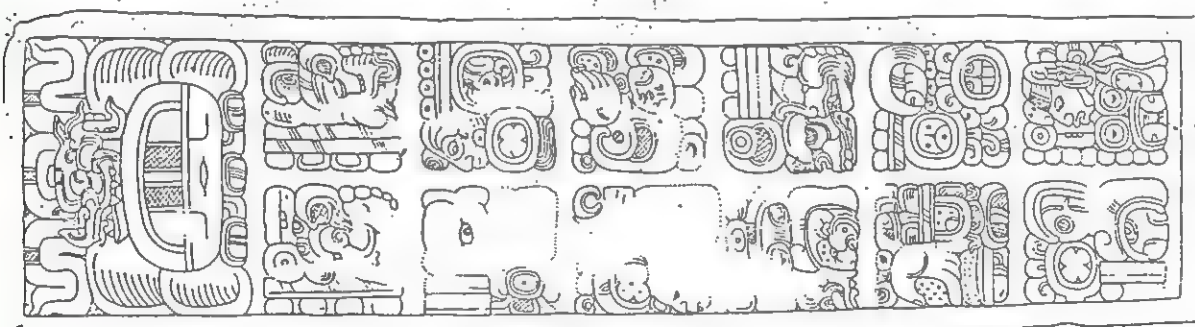
e. Stela 12



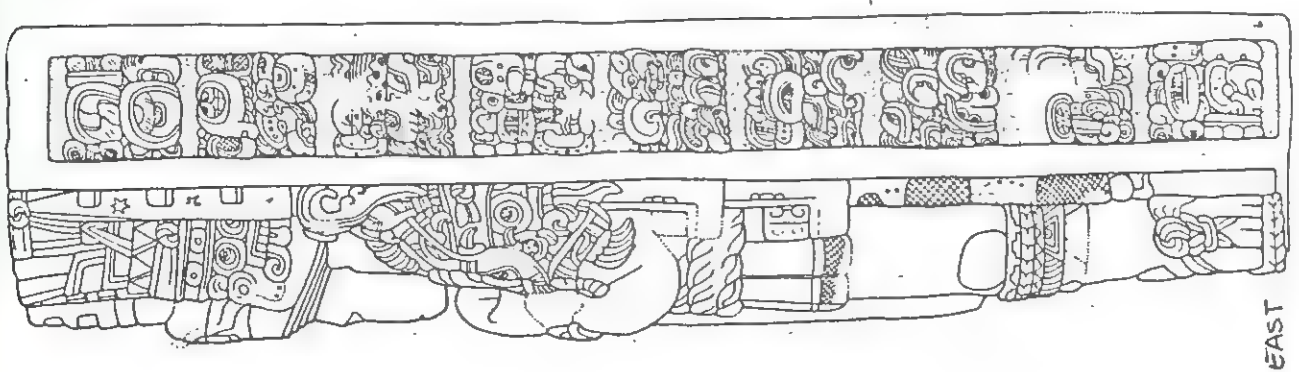
South
B. Fugh P.A.S.



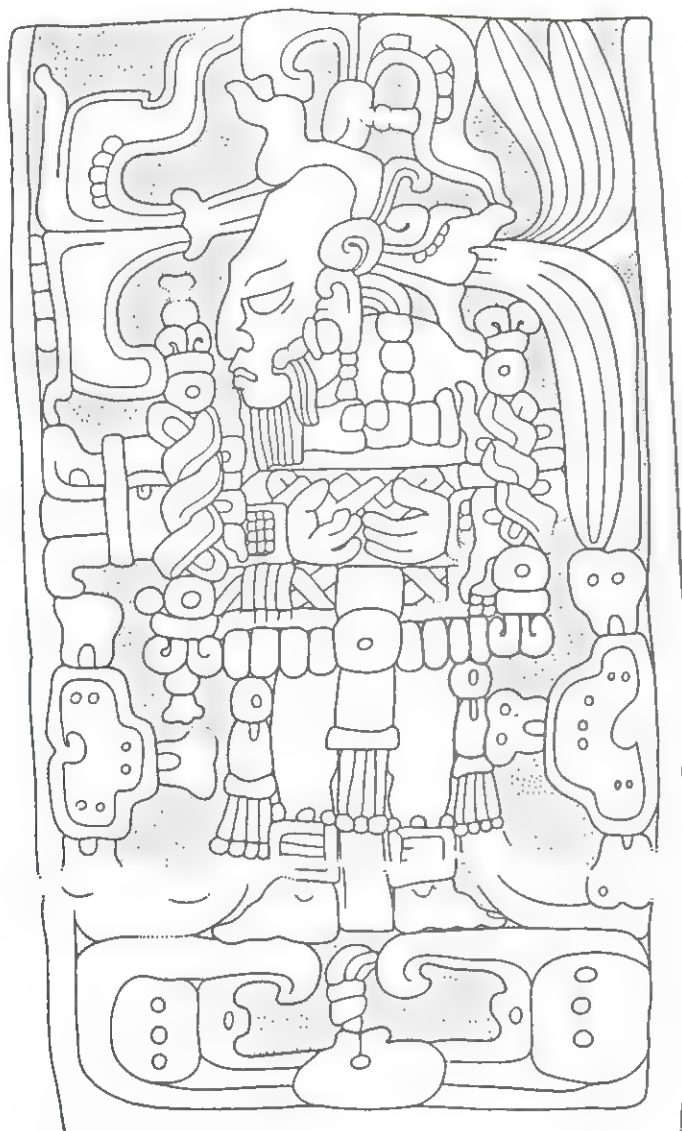
WEST
COPAN ST. 6



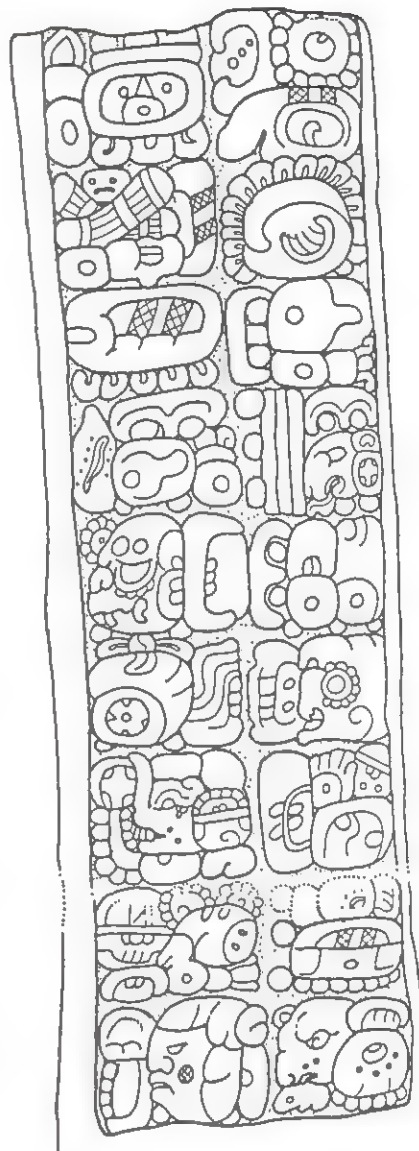
NORTH
Eliade & Lacharme, made at B.M.C. 1911/12 P.A.



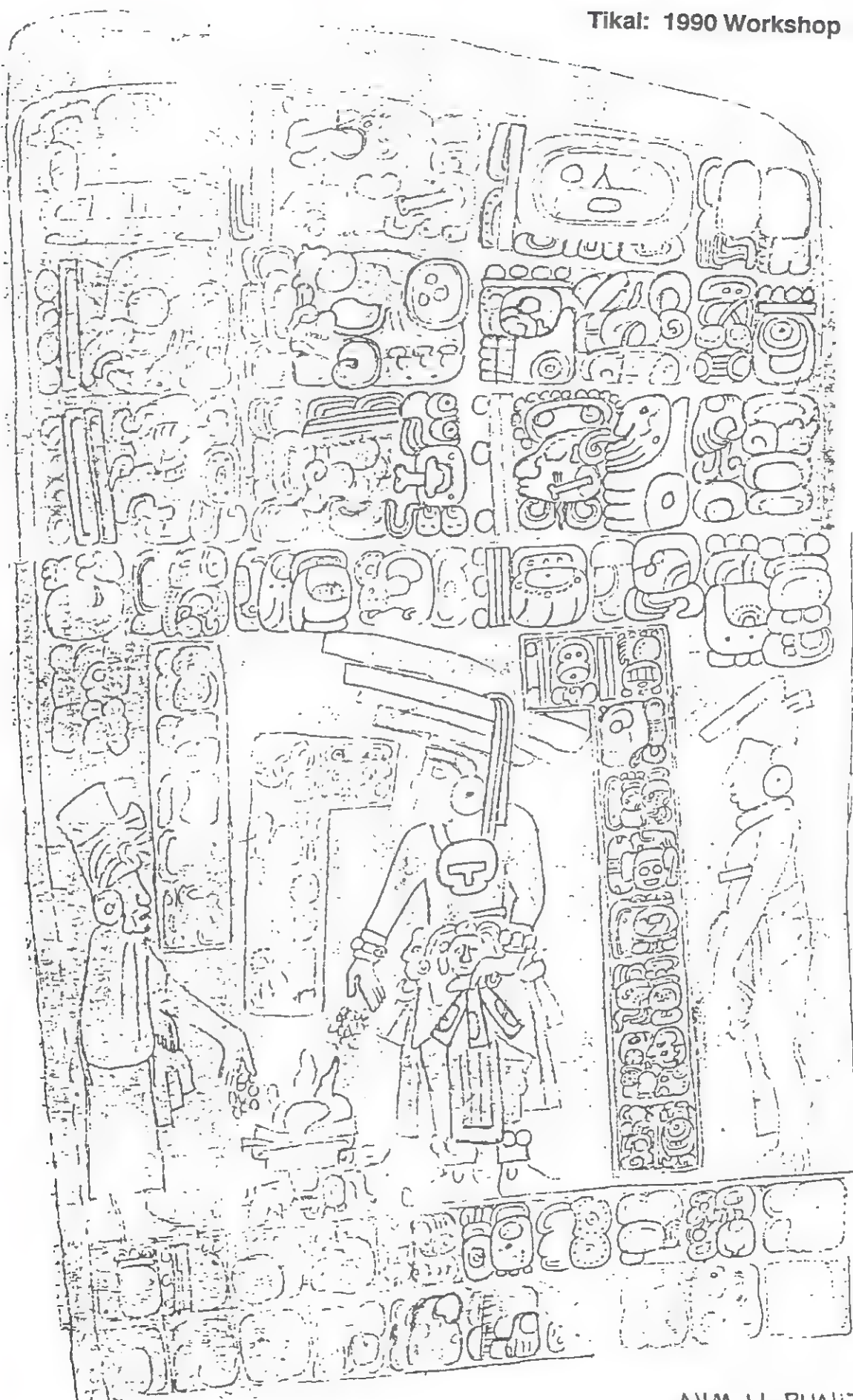
EAST
Estela Le Lado es
B. Fugh, P.A.S.



drawing by BW Fash



Copan St. 11



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- Baudez, Claude F. and Peter Mathews
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1944 The Fish as a Maya Symbol for Counting. *Theoretical Approached to Problems No.2*. Cambridge: Carnegie Institution of Washington, Division of Historical Research.

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Miller, Mary Ellen

1986 The Murals of Bonampak. Princeton University Press, Princeton.

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1986 The Narrative Structure of Hieroglyphic Text at Palenque. A paper on file at Kinko's.

Schele, Linda and Mary Ellen

1986 The Blood of Kings, A New Understanding of the World of the Maya. Discovery, the Magazine of the Yale Peabody Museum of Natural History, 19:14-19.

The Copán Notes. Short reports on new decipherments resulting from the 1986 field season at Copán. On file for copying at Kinko's.

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Research Reports on Ancient Maya Writing, 1-3

1-2) *The Yaxha Emblem Glyph as Yax-ha* by David Stuart.

A New Child-Father Relationship Glyph by David Stuart.

3) *Problematic Emblem Glyphs: El Chorro, Río Azul, and Xultun* by Stephen Houston.

Order from: Center for Maya Research

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Washington, D.C. 20035-5760

NEW ADDITIONS TO THE READING LIST FOR 1989 173

Chase, Arlan F. and Diane Z. Chase

1987 *Investigations at the Classic Maya City of Caracol, Belize: 1985-1987. Pre-Columbian Art Research Institute, Monograph 3.* San Francisco: Pre-Columbian Art Research Institute.

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IMPORTANT BOOKS

Schele, Linda and Mary Ellen Miller

1986 *The Blood of Kings: Dynasty and Ritual in Maya Art.* Kimbell Art Museum, Fort Worth, and Braziller, New York.

1988 *Maya Iconography*, edited by Elizabeth Benson and Gillett Griffin. Princeton: Princeton University Press.

1988 *Primer Simposio Mundial sobre Epigraphia Maya.* Guatemala: Asociación Tikal.

Stuart, David (THIS IS A MUST)

1988 Ten Phonetic Syllables. Research Reports on Ancient Maya Writing 14. Washington, D.C.: Center for Maya Research

Schele, Linda and David Friedel

1989? *A Forest of Kings: Royal Histories of the Ancient Maya.* William Morrow and Co., New York. (This will be ready in the Fall of 1989 or Spring of 1990.)

MUSTS:

The Copan Notes are up to #51 as of January, 1989. There are all on file at Kinko's, but must be ordered as a unit.

George Stuart's *Research Reports on Ancient Maya Writing* are the most important single publication on glyphs. They are up to # 17 as of the end of 1989. You should put a standing order in for them--a double order would be better.

New Additions to the Reading List for 1990 174

Kerr, Justin

1989 *The Maya Vase Book: A Corpus of Rollout Photographs of Maya Vases*. Kerr Associates, New York.

Stuart, David, and Stephen Houston

1989 Maya Writing. *Scientific American* 261,2: 82-89.

Diehl, Richard A., and Janet C. Berlo, editors

1989 *Mesoamerica After the Decline of Teotihuacan: A.D. 700-900*. Washington, D.C.: Dumbarton Oaks Research Library and Collection.

Stephen Houston

1989 *Reading the Past: Maya Glyphs*. University of California Press and the British Museum.

NEW FROM THE WORKSHOP PRESS

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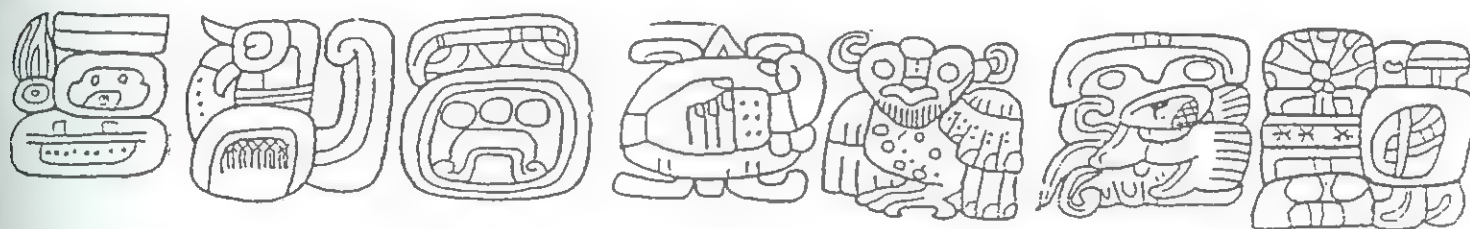
For years, with skilled hands and painstaking dedication, John has labored to produce a complete record of the monuments of that beautiful city on the shores of the Usumacinta River. Based on personal observation, augmented by descriptions, drawings, and photos of both early and recent visitors to the site, some 140 drawings have been completed to date. (See John's drawing of stela 7 on the previous page.)

Many of these accurate, highly-regarded drawings have circulated privately for use in classes and research workshops at the University of Texas, the Maya Meetings at Texas, the Penn Maya Weekend, and elsewhere, allowing John to benefit from comments and suggestions from art-historians and epigraphers in his production of the final versions.

Now, for the first time, the Piedras Negras drawings of John Montgomery are publicly available. Up to the time of printing (Dec, 1993), the very latest completed drawings will be included. Over 140 drawings, together with useful tables, king-lists, and other data-compilations and analyses generated in recent workshops. Spiral bound, with cardstock covers. \$45, postpaid. Available from the Maya Workshop Foundation, P.O. Box 5645, Austin, TX 78763, or order on the registration form.

THE DYNASTIC HISTORY OF PALENQUE

The Proceedings of the Maya Hieroglyphic Workshop 1993: The Dynastic History of Palenque, by Linda Schele and Peter Mathews, is a complete verbatim transcript of the 12 hours of lectures given at the 1993 Workshop by Drs Schele and Mathews. With their approval and review, Phil Wanyerka of Cleveland State University has carefully transcribed and edited this volume. Indexed and fully illustrated with the same hieroglyphic texts, maps, and pictures used in the lectures, the 1993 Proceedings is an up to the moment summary of and commentary on the history of the rulers of this important Maya city-state. It contains much new material, organized by ruler. (For glyph-by-glyph translations of the major texts at Palenque, the Palenque Triad volume is available (see below). An invaluable companion to the 1993 Notebook. Over 100 illustrations, 195 pages, spiral-bound with cardstock covers. \$45, postpaid.



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1991 (Yaxchilan) 1992 (Origins) 1993 (Palenque)

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bound with cardstock covers. The Copan lectures (1989 Workshop): 384 pages, \$45, postpaid. The Tikal lectures (1990 Workshop): 266 pages, indexed, \$40, postpaid. The Yaxchilan lectures (1991 Workshop): 254 pages, indexed, \$45, postpaid. The Origins lectures (1992 Workshop): 243 pages, indexed, \$45, postpaid. The Palenque lectures (1993 Workshop): 195 pages, indexed, \$45, postpaid. Order on the registration form.

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Now available together in one volume: the hieroglyphic inscriptions and glyph-by-glyph translations and commentary that appear in the Notebooks of the 1986, 1987, and 1988 Workshops on Maya Hieroglyphic Writing. Not included are the introductory sections of these Notebooks. The PALENQUE TRIAD provides a conve-

nient reference to the major inscriptions at Palenque, including Palace Tablet, the Tablet of the Slaves, the Tablet of the 96 Glyphs, the Temple of the Inscriptions panels, and the texts from the Temples of the Cross, Sun, and Foliated Cross. The volume comes spiral-bound with cardstock covers. \$45, postpaid.

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Beginning with the IInd Maya Workshop in 1978, Dr. Schele has prepared a Notebook for each Workshop. These Notebooks not only serve the Workshops, but are also the only published materials documenting year by year the advance of the field of Maya hieroglyphic decipherment.

All Notebooks are spiral bound with heavy paper covers. Each is divided into two major sections: an introduction and explanation of the functioning of the glyph system; and actual glyph texts. The former section is up-dated and expanded each year to incorporate new discoveries and interpretations.

Through the XIIth Workshop in 1988, the glyph texts used in the analysis sections were Classic period tablets at Palenque, the Maya site at which the longest inscriptions occur. These texts were divided into 3 groups, one of which was analyzed each year; each year the data were up-dated and revised to reflect new interpretations and decipherments.

The XIIIth Workshop Notebook (1989) deals with the texts of Copan, the XIVth Workshop Notebook (1990) with Tikal, and the XVth Workshop Notebook (1991) with Yaxchilan. In 1992, the "Origins" Workshop (XVIth) unveiled the just-discovered creation cosmology and its mapping in the night sky. The XVIIth Workshop Notebook (1993), by Dr. Schele and Dr. Peter Mathews, contains an extensive and updated account of the dynastic history of Palenque.

The earlier Notebooks are largely of historical interest, the information in them having been superseded by that in later Notebooks, but those still in print are listed here for the convenience of individuals and libraries desiring to obtain as complete a set of Notebooks as possible.

1977-1981: I-Vth Workshops: Out of print

1982: VIth Workshop: \$35. 104 pages divided roughly equally between explanatory material and analyses of the Palace Tablet, the Temple XVIII jambs, and the Tablet of the 96 Glyphs, at Palenque.

1983: VIIth Workshop: \$35. 127 pages divided roughly

equally between explanatory material and analyses of the 3 panels in the Temple of the Inscriptions, at Palenque.

1984: VIIIth Workshop: Back in print. \$35. 130 pages divided roughly equally between explanatory material and analyses of the texts from the Temples of the Cross, Sun and Foliated Cross at Palenque.

1985: IXth Workshop: \$35. 108 pages divided roughly equally between explanatory material and analyses of the Palace Tablet, the Temple XVIII jambs, the Tablet of the 96 Glyphs, and the Tablet of the Slaves, at Palenque.

1986: Xth Workshop: Back in print. \$35. 129 pages divided roughly equally between explanatory material and analyses of the 3 panels in the Temple of the Inscriptions, at Palenque.

1987: XIth Workshop: \$35. 150 pages divided roughly equally between explanatory material and analyses of the texts from the Temples of the Cross, Sun, and Foliated Cross at Palenque.

1988: XIIth Workshop: \$35. 113 pages divided roughly equally between explanatory material and analyses of the Palace Tablet, the Temple XVIII jambs, the Tablet of the Slaves, and the Tablet of the 96 Glyphs, at Palenque.

1989: XIIIth Workshop: \$35. 127 pages divided roughly equally between explanatory material and the texts of Copan.

1990: XIVth Workshop: \$35. 174 pages divided roughly equally between explanatory material and the texts of Tikal.

1991: XVth Workshop: \$35. 200 pages, divided between explanatory material and the texts of Yaxchilan.

1992: XVIth Workshop: \$35. 259 pages, divided between explanatory material, texts from the Group of the Cross at Palenque, and the 1992 discoveries about Maya cosmology.

1993: XVIIth Workshop: \$35. 165 pages, divided between introductory material and the texts and commentary relevant to the Dynastic History of Palenque.

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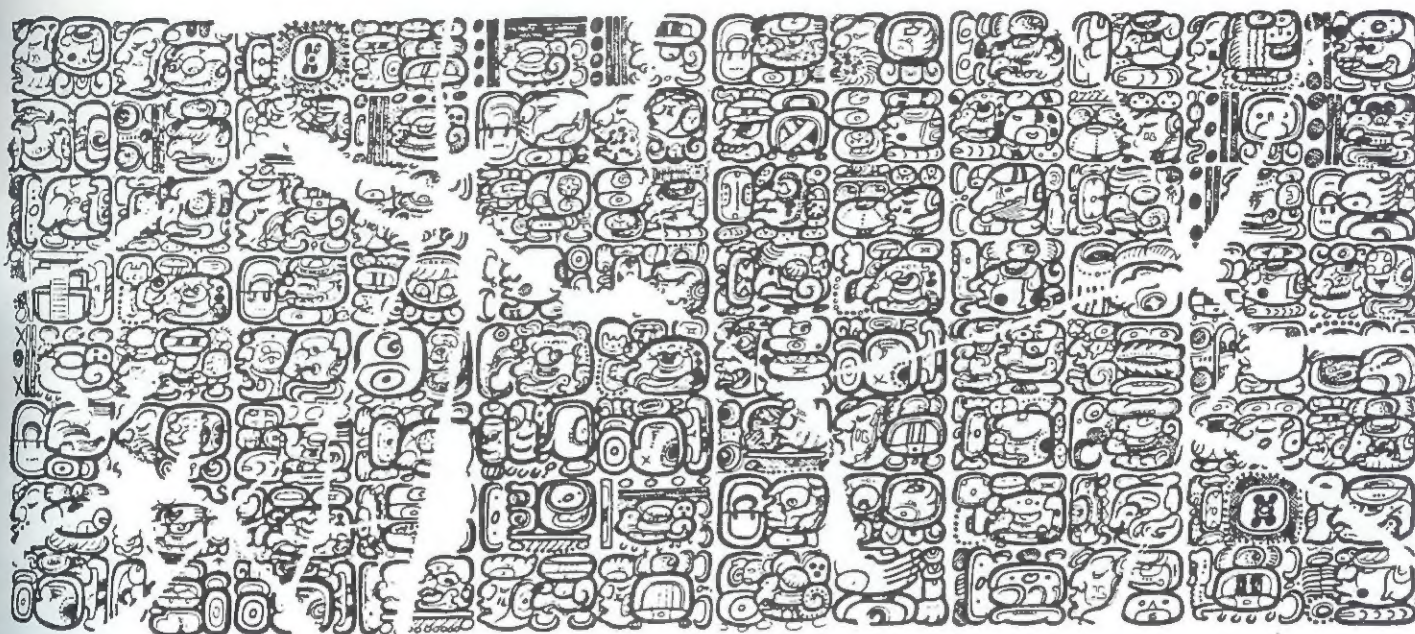
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